

**BELFAST NATURAL HISTORY
and PHILOSOPHICAL SOCIETY**

157th - 161st SESSIONS

PROCEEDINGS
and
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Sessions

1977/78 - 1981/82

Second Series

Volume 10

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BELFAST NATURAL HISTORY AND PHILOSOPHICAL SOCIETY

(Established 1821)

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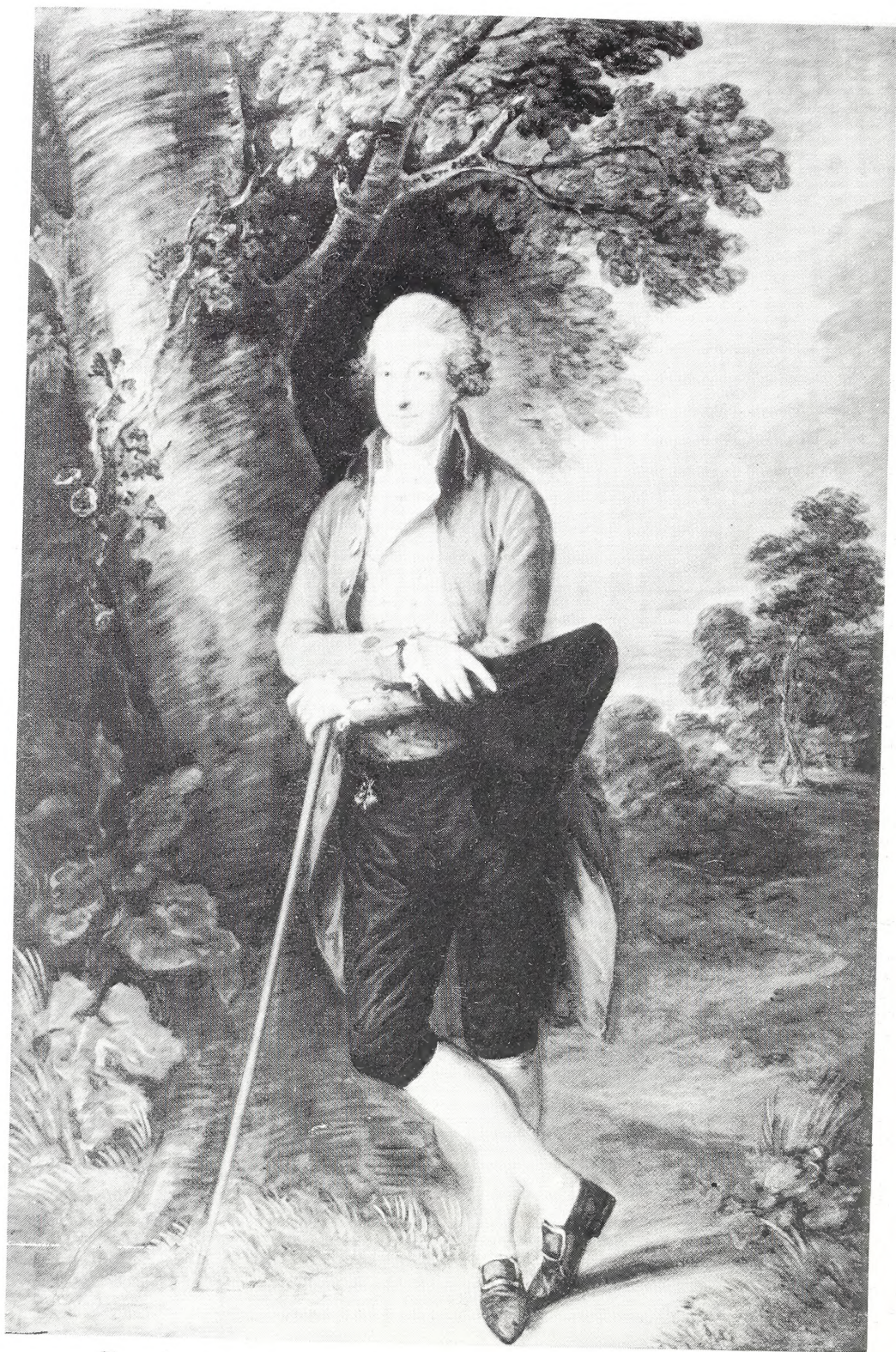


Figure 1. Arthur, fifth Earl of Donegall, by Gainsborough (Ulster Museum).

10th February, 1981

ABSENTEES, ARCHITECTS and AGITATORS:
THE FIFTH EARL OF DONEGALL AND THE BUILDING OF FISHERWICK PARK

W. A. MAGUIRE, M.A., Ph.D., F.R.Hist.S.

The fifth Earl and first Marquis of Donegall was the greatest Irish landowner of his day. He was also the greatest absentee, at a time when absentees were becoming increasingly unpopular and were being blamed for many of the country's economic difficulties; so much so that in 1773 the Irish parliament made the first of many attempts to impose a special tax on their estates. Furthermore, Donegall was a particularly offensive sort of absentee, who kept no great house for his occasional visits but chose to live on an estate in England which was only a fraction the size of his Irish property and which — to make matters even worse — he had deliberately bought for the purpose. As the chief of sinners he was publicly accused in 1790 of 'draining a manufacturing country . . . of £36,000 a year . . .' and of having 'raised fines [lump sums in cash sometimes paid by tenants in order to get leases] sufficient to impoverish a province, and transported them out of the Kingdom to build palaces in another land, where he is unknown or disregarded . . .'.¹ On the face of it he was the very pattern of the worst kind of Irish landlord, spending none of his income for the benefit of the community from which he drew it. In fact this was far from being the case: though an absentee, he was an active and interested proprietor, who spent over £30,000 in providing Belfast with fine public buildings and £60,000 on completing the Lagan canal.

Whatever good this may have done his local reputation during his own lifetime, it has done him no good in the history books. Both at the time and since, he has been blamed for provoking the most serious outbreak of rural disorder in Ulster during the eighteenth century — the Hearts of Steel rising, as it was called — and for driving thousands of presbyterian tenants in desperation to America. Did he really do that? To find the answer, we need to take a fresh look at how he behaved as a landowner, in the light of recent research in estate records.

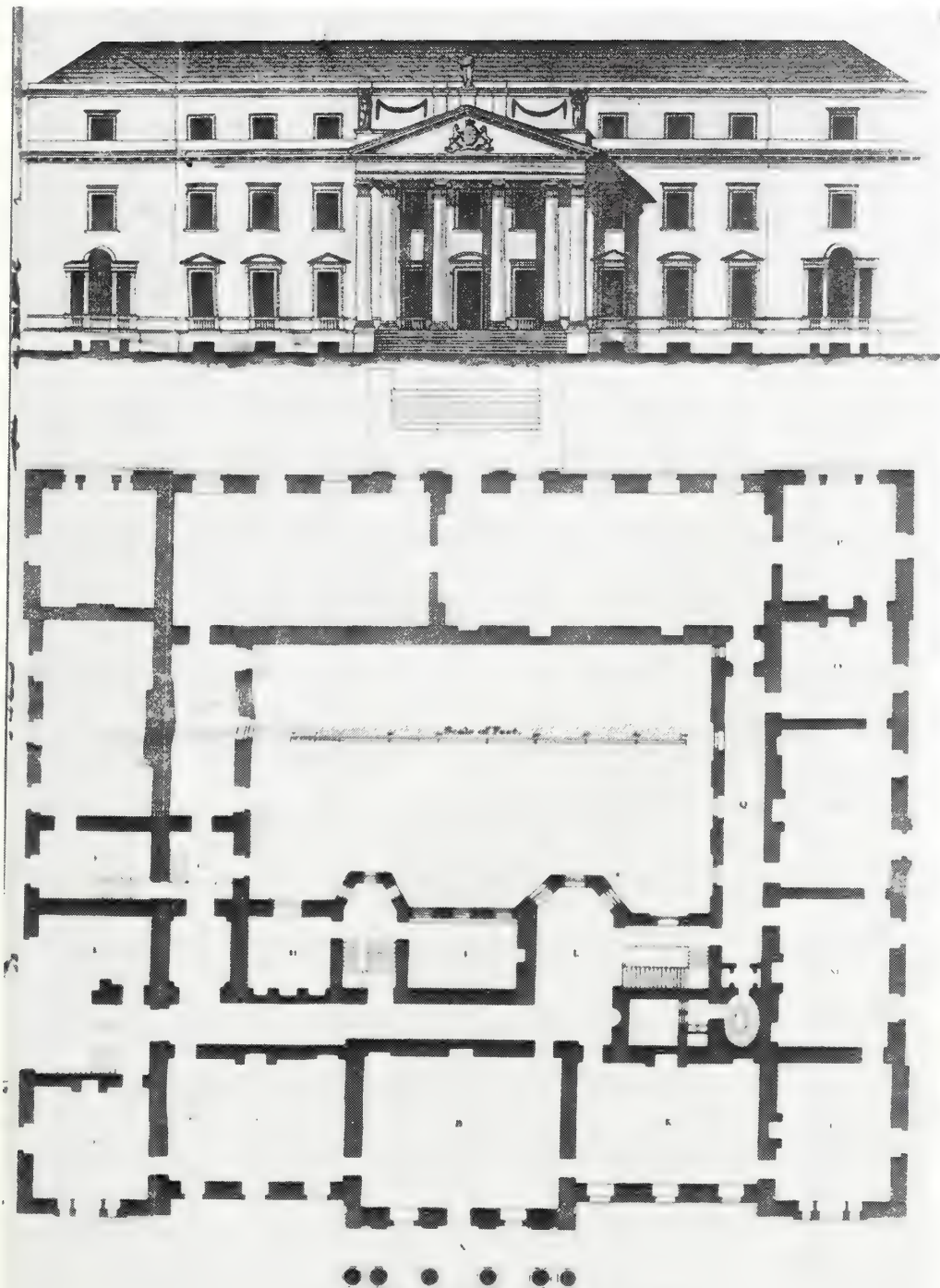
1.

Arthur Chichester inherited the estates and titles of his widowed, childless and witless uncle in 1757. Already, through his father, proprietor of the 11,000-acre manor of Dunbrody in Co. Wexford, he thus became the greatest landowner in Ireland, with properties in Antrim, Donegal and Wexford totalling not less than a quarter of a million acres. Since the death of his mother in 1747 (less than a year after that of his father) he had lodged with relatives and trustees. At the time of his uncle's death he was eighteen years of age, had left Eton and was about to go to Trinity College, Oxford, where he took his M.A. degree in 1759 and the D.C.L. degree four years later.² The fact that he troubled to take a degree at all, as many noble students did not, indicates at least his respect for learning, though Oxford's reputation for learning was at that time pretty low.³ The library that he later collected, however, bears out the impression that he was indeed, as Dr. Alexander Haliday of Belfast remarked, 'a serious well disposed nobleman'.⁴ The portrait by Gainsborough now in the Ulster Museum (Fig. 1) shows a middle-aged gentleman of conventional appearance, with a pear-shaped head and a slightly melancholy air. The fine bust of him by Nollekens in the possession of the present marquess confirms Gainsborough's likeness and also reveals that he had a wart at the corner of his left eye.

Until his coming of age in June 1760, his property remained in the hands of trustees. Perhaps not surprisingly, in view of his experience as an orphan heir whose relatives had quarrelled about his custody, his first independent action was to buy a place of his own. Fisherwick Park, near Lichfield in Staffordshire, had been the English home of that branch of the Skeffington family which through a marriage in the seventeenth century had obtained the estates of the Clotworthys in Co. Antrim, along with the titles of Viscount Massereene and Baron of Lough Neagh. The Massereene property in Ulster bordered that of the Donegalls, and the two families were connected by the marriage of Donegall's aunt to the fourth Viscount Massereene. In 1755 the spendthrift fifth viscount was obliged to part with Fisherwick. The estate changed hands again in 1759 and less than two years later, in February 1761, the bulk of it was re-sold for just over £30,000 to young Donegall, who borrowed two-thirds of the money by mortgaging the place.⁵

The property he bought amounted to between 1,300 and 1,400 acres. Fisherwick Hall was a Tudor hunting lodge, consisting of a main block with projecting wings forming an open courtyard at the back. It had large bowed transom windows, ornamented gables and what an eighteenth-century writer called 'rich piles of zig-zag chimnies, turrets &c'.⁶ Its old-fashioned appearance and modest size did not suit its new owner, who had ideas of elegance and grandeur appropriate to the period and to his notion of himself as a great landowner. His marriage in November 1761 to Lady Anne Hamilton, only daughter of the fifth Duke of Hamilton, enhanced his standing in English society and in due course prompted him to embark on the building of a magnificent new house and park which would be his family's country seat (he bought a house in St. James's Square as their London residence). He was not unacquainted with architectural transformation on the grand scale, for his uncle and guardian Sir Roger Newdigate — a man of wide cultural interests and founder of the Newdigate Prize at Oxford — spent most of his time and income from 1750 onward in transforming Arbury Hall in Warwickshire with the aid of Italian craftsmen. Though probably encouraged by his uncle's example, Lord Donegall favoured the palladian style rather than the gothick. The renowned Lancelot 'Capability' Brown was commissioned both to design and build a new house of classical appearance and to create a suitable setting for it. Work began with the pulling down of the old hall in 1766, and by 1774 the main part of the new one had been completed.⁷ This was the 'palace in another land' mentioned by his accuser in 1790.

The new house that arose on the foundations of the old was a very large building in white stone forming a quadrangle round a central court (Fig. 2). The striking feature of its main front, which faced south, was a giant Corinthian portico. The ends of the eleven-bay facade (which was 180 feet in length) projected slightly and had venetian windows on the ground floor in contrast to the angular or elliptical pediments of the rest. The portico led into a grand entrance hall whose walls were divided by pilasters of polished marble and stucco panels. On the right of the hall was the great drawing-room, where the decorations were by Joseph Bonomi (a talented Italian sculptor who had come to England in 1767 and had spent some years in the office of Robert Adam) and the painted ceiling by J. F. Rigaud (also from Italy but of French Huguenot stock, who had become fashionable shortly after his arrival in 1771). This led to a second, smaller drawing-room or music room which occupied the corner. Like the first, its walls were hung with silk damask and it had gilt mouldings and a fine marble chimney-piece. Next was a third drawing-room, notable for a dado composed of the 'rarest India Japan panels'. The main rooms beyond that on the east side consisted of a second dining-room, beyond which were a billiard room (occupying the west corner) and a gun room. The north side of the quadrangle on the ground floor consisted of 'spacious vestibules elegantly fitted up with roomy communications to the different apartments' as the



Elevation & Ground Plan of Fisherwick Hall.

Figure 2. 'Elevation and Ground Plan of Fisherwick Hall', from the sale catalogue of 1808 (William Salt Library, Stafford).



Figure 3. Fisherwick Park in 1786, by John Spyers (William Salt Library, Stafford).

1808 sale catalogue — from which we get most of these details — put it.⁸ The first storey had nine bedrooms, six dressing rooms, a housekeeper's bedroom and storeroom, and a water closet 'well constructed and expensively fitted up' which was supplied by the 'capital reservoir on the top of the house' and its 'force-engine'. In the attic storey were eighteen bedrooms with cement floors, for the servants whose working quarters were in the basement of the house.

To the rear of the house was a square yard surrounded by lower buildings which contained steward's quarters, laundry, brewhouse, slaughterhouse and so on, with some bedrooms for yard servants. An archway led to the mews, which had stabling for fifty horses, a coach-house for eight carriages, and working and sleeping quarters for the stable servants. The farm buildings some distance away had the latest appurtenances of improved farming, such as brick frames in the stackyard and a breeding house of an advanced circular design for fowl. The kitchen garden, five acres in extent, contained glasshouses for grapes and peaches and hothouses 'fitted with patent lights and supposed to be the most productive in the kingdom'. The adjoining flower garden was embellished with a small temple. Between these two gardens and the house lay a large ornamental sheet of water, created by the damming of a small stream flowing into the Tame nearby. At the lower end, where it narrowed, there was a cascade with a stone bridge, and further downstream another bridge of timber. On a high bank across the water from the house stood a Chinese pavilion. This whole area was surrounded by shrubberies and walks. To the south the park itself, some four hundred acres of it, stretched away, dotted with plantations and grazed by herds of deer. Brown claimed to have planted 100,000 trees, mainly oaks with some conifers as shelter. In 1779 Donegall was awarded a medal for planting twenty-five acres of oaks, an event which prompted a poet in search of a patron — and no wonder, considering the quality of his verse — to write:

*Here infant oaks by Donegall are sown
And form a sheltering forest of their own.
Cut from their trunks new navies shall arise
In after-times to glad Britannia's eyes.*

In this splendid setting (Fig. 3) Lord Donegall and his wives (he married twice after the death of his first wife in 1780) loved to entertain their friends and neighbours, often in a great marquee which was erected near the house (and which appears in one of the six drawings done by Brown's surveyor John Spyers in 1786, now in the William Salt Library, Stafford). Built with the finest of materials and workmanship Fisherwick was indeed, as Miss Dorothy Stroud says in her biography of Brown, 'the epitome of Georgian elegance'. The furniture of the place was no less elegant than its decoration, while so far as paintings are concerned we know they included portraits of the family by Gainsborough and Romney and of the fourth earl and his countess by Thomas Hudson. The most prized item in a collection of musical instruments was a virginal which had belonged to Queen Elizabeth. Lord Donegall spent considerable sums on the cultural furniture of Fisherwick, stocking the libraries with the 'finest editions of the most eminent antient and modern authors', as the Rev. Stebbing Shaw put it in his *History and Antiquities of Staffordshire* (1798), and on acquiring collections of natural history specimens. As Dr. Haliday condescendingly remarked in 1788, he had 'expended £20,000 on books not yet opened, and £10,000 on shells not yet unpacked'.⁹

It is not clear from the surviving accounts exactly how much Fisherwick cost to build. Brown's account book shows that between March 1769 and June 1776 he received sums totalling £7,225.¹⁰ Though the date carved on the portico was 1774, much finishing work remained to be completed after 1776. The new agreement made in June of that year

survives. By it Brown undertook to carry out the work 'with all possible expedition . . . in the most substantial and workmanlike manner and . . . with the best materials' for the sum of £9,406.¹¹ Shaw states that the house as actually built was only half of Brown's original design, which if true would indicate a very ambitious project indeed, more a palace than a house. The income from the estate, about £1,200 a year to begin with, was just over £2,000 a year from a much enlarged property at the time of its owner's death in 1799.¹² This did not even pay the interest charges on the mortgage to Hoare's bank. Not only had Donegall borrowed two-thirds of the purchase price in 1761, but three years later — presumably when he decided to rebuild — had borrowed another £10,000 from the same source. A further £10,000 followed in 1766, making £40,000 on this one mortgage.¹³ Not only that, but two years later he mortgaged Dunbrody to the same man for £20,900.¹⁴ After this orgy of borrowing, which must have been associated with the rebuilding of Fisherwick, Donegall's financial position suddenly improved. In March 1770 he paid off the holder of the £40,000 mortgage, and it was not until 1785 that he again borrowed heavily, this time from his banker. The £25,000 he had borrowed from this source by the end of 1785 was subsequently reduced to £19,000 but then in September 1787 was increased to £40,000, in order to add another thousand acres or so to the Fisherwick estate. This sum was increased to £47,000 — all of it secured by a mortgage on the property — sometime during the next ten years.¹⁵ All in all, Fisherwick cost a great deal of money.

2.

While the splendid new Fisherwick Hall was taking shape in the rural tranquillity of Staffordshire, things were far from tranquil in Co. Antrim. In the two and a half years between the summer of 1770 and the close of the year 1772 large areas of the Ulster countryside were rendered ungovernable, without the use of military force, by the activities of the self-styled Hearts of Steel or Steelboys. There was nothing new about agrarian agitation in the north of Ireland — as recently as 1763 Tyrone, Armagh and Monaghan had been similarly affected by the Hearts of Oak or Oakboys — but the Hearts of Steel outbreak was more serious and more prolonged than earlier troubles, and attracted the attention of the governments in Dublin and at Westminster both for that reason and also because it was thought to be the cause of a great exodus of presbyterians, the religious group to which the rioters belonged.

The course of events is well documented in contemporary newspapers and official records; and the rioters' grievances were publicly expressed in several proclamations. A fairly detailed — if rather incoherent and extremely biased — account was written seventy years ago by F. J. Bigger, whose *Ulster Land War of 1770* made use of most of the evidence then available (or at any rate of what was favourable to the Steelboys, of whom he approved). What happened once the agitation became a matter of public concern is therefore not in doubt, apart from occasional details. Briefly, tenants of various degrees on the estates of Clotworthy Upton and Lord Donegall in south-east Antrim combined to resist the raising of rents, the demand for lump sum payments (known as 'fines') on the renewal of leases, the removal of occupiers whose leases were not renewed, and the activities of some Belfast merchants who leased whole townlands as middlemen. Houses and haystacks were burned, cattle maimed, crops destroyed, forced contributions levied, unco-operative landlords and tenants intimidated and murders committed. The perpetrators of these outrages, bound to each other by secret oath, appear in the early stages to have enjoyed the sympathy if not the active support of most of the countryside, and the small military garrisons in Belfast and Carrickfergus could do little to preserve order or protect property. When one of the leading Steelboys was arrested and lodged in gaol in Belfast in December 1770, a large armed body

invaded the town in broad daylight and forced his release by threatening to burn the place down. This act of defiance brought proclamations from the local magistrates and then from the government in Dublin, but the outrages continued and increased and, when arrests were made, juries could not be found to convict the prisoners. During 1771 the disturbances spread to other parts of Antrim and to Down. The authorities sent military reinforcements to the north and early in 1772, alarmed by the difficulty in securing convictions from local juries, rushed through an act to have the accused tried in Dublin. Trouble spread to Londonderry and parts of Armagh, and there was much opposition to the trials act, which in any case proved to be unworkable. Later in the same year, however, some convictions were secured and several Steelboys were hanged at Carrickfergus and Downpatrick. The increasing firmness of government, waning public sympathy, and the effects of a serious slump in the domestic linen industry from the latter part of 1772 onward caused panic among the supporters of the movement and many of them joined the swelling tide of emigrants, whose numbers became a matter of acute official concern. By November 1772 the retiring viceroy, Lord Townshend, was able to offer a general pardon to all but some named individuals, and by the end of the year the movement had largely subsided.

According to most sources, all this trouble was caused by the wicked greed and oppression of Lord Donegall; there would have been no hearts of steel among the tenants, apparently, if this great landlord had not first displayed a heart of flint. Certainly he got a very bad press at the time. The Dublin newspaper *The Public Journal* of 5 August 1772 explained the outbreak of the agitation in this way:

'A certain noble lord of very limited abilities, but extreme property . . . visited this country to let his lands. The method he pursued opened the way to tyranny and oppression. He either set a great scope to one man, or he took fines, by which means the poor industrious tenants, who occupied the lands, unable to pay the demand of their landlord . . . were obliged to leave their habitations or remain at a rack-rent. Nay, they were often turned off their farms, and those fertile fields, which produced bread for their inhabitants, were converted into pasturage, and the country, once populous, wore and still wears the face of depopulation and misery.'¹⁶

The *Public Journal* was hostile to absentees in any case. More surprisingly, the viceroy Townshend evidently included Donegall in his private strictures on northern landlords who by raising rents had pushed their tenants to rebellion and emigration. Townshend's opinions as to the cause of the trouble were based to some extent on the observations of a Captain Erskine of Lord Drogheda's light dragoons, who wrote ' . . . should the causes of these riots be looked into it will be found that few have had juster foundation'.¹⁷ In political circles in England, too, sympathy was frequently expressed for the victims and Donegall blamed for oppressing them: Sir Joseph Yorke, writing to his relative Lord Hardwicke in 1772, went so far as to suggest that Donegall should be expelled from his seat in parliament (he was M.P. for Malmesbury from 1768 to 1774) if he did not 'go and do justice to his Tenants'.¹⁸ Even John Wesley — no social revolutionary — who visited Belfast in 1773 shortly after the disturbances had ended, wrote in his journal for Tuesday 15 June:

'When I came to Belfast I learned the real cause of the late insurrection in this neighbourhood. Lord Donegall, the proprietor of almost the whole country, came hither to give his tenants new leases. But when they came they found two merchants of the town had taken their farms over their heads; so that multitudes of them, with their wives and children, were turned out to the wide world'.¹⁹

This explanation of the matter became petrified and enshrined in academic history a century or so later, when first Froude and then Lecky denounced Donegall's conduct. In *The English in Ireland in the Eighteenth Century* Froude wrote:

'The fifth Earl and first Marquis of Donegall, already, by the growth of Belfast and the fruit of other men's labours while he was sitting still, enormously rich, found his income still unequal to his enormous expenditure. Many of his Antrim leases having fallen in simultaneously, he demanded £100,000 in fines for the renewal of them. The tenants . . . offered the interest of the money, in addition to the rent. It could not be. Speculative Belfast merchants paid the fine, and took the lands over the heads of the tenants, to sub-let. A Mr. Clotworthy Upton, another great Antrim proprietor, imitated the example, and at once the whole country-side were driven from their habitations. Sturdy Scots, who in five generations had reclaimed Antrim from the wilderness, saw the farms which they and their fathers had made valuable, let by auction to the highest bidder . . .'²⁰

Lecky was more cautious about the amount said to have been sought in fines, but in his *History of Ireland in the Eighteenth Century* Donegall was still the villain of the piece. The outbreak of the Hearts of Steel, he wrote, was 'mainly attributable to the oppression of a single man . . . The conduct of Lord Donegall brought the misery of the Ulster peasantry to a climax; and in a short time thousands of ejected tenants, banded together under the name of Steelboys, were in arms'. Donegall had brought this about by letting his estate over the heads of the tenants, when they were unable to pay the fines he demanded, to two or three rich merchants of Belfast. 'The improvements were confiscated, the land was turned into pasture, and the whole population of a vast district were driven from their homes'.²¹

Not surprisingly, Irish historians with nationalist sympathies writing during the same period, when the land agitation was at its height, went farther by condemning Donegall out of hand as the bad representative of a bad system. W. K. Sullivan, for example, writing in 1888, ascribed the rise of the Steelboys to

' . . . the extravagance and profligacy of a bad landlord, the representative of the great land thief, Chichester, of the Plantation of King James I. This worthy descendant, wanting to raise money wherewith to supply his extravagance, levied enormous fines for renewal of leases, thereby introducing into his part of Ulster an unjust and bad custom. The greater part of his tenantry, being unable to pay the fines, were evicted. This inhuman oppression called the Steel Boys into existence'.²²

F. J. Bigger, in a similar vein of moral indignation and in language even less restrained, wrote in his *Ulster Land War*:

'The Earl of Donegall was the planter who gave the lead to his class in unjust treatment of tenants. He, more than any other, was responsible for the insurrection of the people. He drove them to it — there was no limit to his greed, and no length to which he would not go to exact money. He came of a greedy, grasping, overbearing, tyrannical race, he thought of nothing save his own personal aggrandisement, extravagance and debauchery. His tenants were of no account to him compared with the wealth he wished and must have to carry on his wicked career'.²³

Historical fiction written half a century after the event, and based on the oral tradition of the country, also blamed Donegall, though without naming him. A Dr. J. McHenry, of Larne, explained in his novel *The Hearts of Steel* (first published in 1825) that the agent of an absentee nobleman had

' . . . informed the tenants that his employer's wish was, to let his lands, without raising their rents, to such as would pay the highest sum, under the denomination of a

fine for their new leases. Many of the smaller tenants were unable to pay the fines demanded; in consequence of which they were dispossessed, and their farms let to richer individuals, who exacted from the new occupiers, or such of the old ones as ventured to comply with their terms, higher rents than the properties were worth. A great deal of distress and misery to a numerous class of renters was the consequence, which excited the sympathy of thousands who did not in their own persons feel the grievance'.²⁴

Almost alone among contemporaries Arthur Young — the noted writer on agriculture who toured Ireland a few years later — expressed scepticism about Donegall's guilt, reporting in the course of his remarks concerning the emigration of the early 1770s that 'great numbers of those who went from his lands actually sold those leases for considerable sums, the hardship of which was supposed to have driven them to America'.²⁵ A generation or so later Samuel McSkimin, the historian of Carrickfergus, similarly commented:

'... an idea had prevailed that the general rise of rents, which had recently taken place on Lord Donegall's estate, would reduce the tenantry to beggary. This opinion proved totally unfounded, as shortly after it appeared that the estate in question was let on fair terms, and that there was hardly a farm that, at the new rent and fine, would not sell [at] a profit to the lessee'.²⁶

The historian of Belfast, George Benn, quoted Young, criticised Froude and ridiculed the report that anything like £100,000 had been sought in fines.²⁷ Apart from these exceptions the case against Donegall has been unanimous and taken as proved, so that as recently as 1966 R. J. Dickson in his *Ulster Emigration to Colonial America* repeats the traditional account:

'Donegall, preferring cash in hand to an increase in annual income, wished to relet the estate at its former rent and raise £100,000 in fines as compensation for this concession ... The tenants who could not raise sufficient money to pay their portions of the fines were evicted or their leases disposed of to Thomas Greg and Waddell Cunningham who raised the rents of some of the under-tenants and turned the remainder of the land over to pasture'.²⁸

The indictment sounds damning, but it is not difficult to show that it is in some respects based upon inaccurate information uncritically repeated; easier still to dispose of the moral denunciation that Bigger's almost pathological hatred of landlords led him to descend to, for it is simply untrue that this particular Lord Donegall was personally wicked or debauched in his habits. Nor can he be held responsible for outbreaks of unrest on estates other than his own. Indeed, we must not confuse the Hearts of Steel in south-east Antrim with those later agitators in other parts of Ulster who adopted the same name and tactics but who had their own local grievances and aims. This essential difference has been obscured by the loose way the name was used by or given to agitators of all sorts at the time, especially in the later stages when they all seemed to have general aims of a similar kind. Like the earlier Oakboys, the Steelboys started by banding together to set right particular local wrongs, but then went on to become general reformers. A reservoir of discontent in the countryside — over such things as the cess, tithes, rising rents — meant that when trouble broke out over one of these issues the others were soon remembered. In Co. Armagh in 1772, for example, where an observer reported that 'the Hearts of Steel and Hearts of Oak are giving us abundance of news', the trouble started when the grand jury decided to collect the cess with the aid of the military in a barony where no-one had dared to collect it for the past five years. Roused to resist on this issue, the rioters went on to complain about the price of land and the cost of provisions and proceeded to impose their own maximum rates for

both.²⁹ In doing so they adopted the fashionable name of Steelboys but — as the writer's use of both names implies — these Steelboys were really the old Oakboys revived. They had nothing to do with Donegall and the Hearts of Steel in south-east Antrim.

3.

How and why did those original Steelboys come into existence? We must first try to decide when they appeared as an organised movement, as distinct from individual acts of protest. One thing is clear, however: the trouble began on the estate of Clotworthy Upton at Templepatrick in 1769. Newspaper reports of occasional outrages in that area bear out what McSkimin wrote later: 'Meetings began to be held about the country and some excesses were committed. The first house burnt . . . was that of John Bill, Ballymartin, in the parish of Templepatrick, on the night of 23rd July, 1769'.³⁰ The victim, who can be identified as the tenant of a farm of ten [Irish] acres on Upton's estate, had been attacked twice before, in June, when some of his outbuildings had been set on fire, and two days before the burning of his house, when a cow had been maimed.

In January 1769 the whole of the Upton estate — amounting to nearly 7,000 statute acres — had been advertised in the Belfast press for letting on twenty-one year leases.³¹ The advertisement listed the townlands of Kilmakee, Templepatrick, Cloughanduff, Ballymartin, Ballycushan, Straidballymorris, Rickamore, Umgall, Ballynalough and Ballyutoag, along with the acreages of the 99 farms and the names of their occupiers. The simultaneous reletting of so many farms, whose tenants would have to bid for new leases against other proposers, soon led to trouble. The unfortunate tenant in Ballymartin, who was the first victim, was among those whose holdings were advertised, so he was not a newcomer who had taken the farm over the head of its former occupant. Presumably his offence was to have weakened a united front of resistance by hastening to negotiate a new lease with his landlord. That such resistance was quickly organised is suggested by an addition to a later appearance of the advertisement (early in April) to the effect that two tenants in Rickamore and three in Ballyutoag were to be tenants of the estate no longer. At this stage, however, the trouble was confined to Upton's tenants, the outrages were comparatively few, and those involved do not appear to have been calling themselves Hearts of Steel.

All the evidence suggests that the organisation of a body of conspirators using that name, bound by secret oath to resist what they regarded as the oppressions of the landlords, began in the spring or early summer of 1770. According to McHenry the conspirators met on the evening of the Ballyclare fair-day in May, at a public house some three miles from the town called the Game-cock Tavern but known locally (because of the massive appearance of the building) as the Battery. One of those present, named Douglas, is said to have produced a written plan 'for combining all the sufferers and their friends in a secret confederacy, for the purpose of defending the peasantry by punishing their enemies and intimidating others from following their example', along with the form of a secret oath to be administered to each new member on admission.³² Though McHenry gave the initial letter of Douglas's first name as M instead of D there is no doubt that he was writing about the David Douglas who is known to have been a leader of the Steelboys and whose forcible rescue from imprisonment in Belfast was the most dramatic episode in their history (indeed the rescue is mentioned later in the novel). Douglas was a tenant farmer of some kind on Upton's estate at Templepatrick a few miles away. One of Donegall's tenants in the Ballyclare area, John Allen of Rashee, writing in December 1770 about the Steelboys stated: 'In summer last, their first rise was in and about Templepatrick'.³³

The advertisement of Upton's estate was apparently the immediate cause of resistance

by his tenants around Templepatrick. Why did Upton act as he did? Not because he merely imitated Donegall's bad example, as Froude and Bigger supposed, but indeed as a consequence of Donegall's action. Seven of his ten townlands were held under a long lease from Donegall first granted in 1618. Almost certainly (the lease document has not survived, and there is no entry in the Registry of Deeds) it had recently been renewed, and though the rent had been raised from the original £60 to £500 he must have had to pay a heavy fine. This would explain not only why he sought higher rents from his own tenants, but also why they were without leases, since the leases granted by a middleman could not run beyond the term of his own lease from the head landlord. Lord Dungannon was in the same position so far as his Islandmagee estate was concerned, holding under a ninety-nine year lease from Donegall. In his case the rent was a mere £200 a year, unchanged since the original letting in 1618, but in order to get the lease renewed in 1769 for a further century he was obliged to pay the huge fine of £18,500.³⁴ Consequently in January 1770 he too advertised in the *Belfast News Letter* for proposals.

If both Upton and Dungannon were reletting their leasehold estates, why did the former provoke strong opposition at Templepatrick while the latter apparently avoided doing so in Islandmagee? Both advertisements were couched in the same form; and the fact that Dungannon's appeared a year later, when many Antrim tenants were already uneasy, would lead one to expect more trouble in his case. Either Upton in carrying out his plans behaved in a way that his tenants found unbearable, while Dungannon was more circumspect; or conditions in the Templepatrick area differed in some significant way from those in Islandmagee. Dungannon's tenants did not rush to negotiate new leases (the last appearance of the advertisement in the *News Letter* was in October 1770) yet we know from later evidence that most of them retained their holdings, and there is no sign that this was achieved only by determined resistance.

In contrast, there does appear to have been something in the conduct of Upton (who, like Donegall, was an absentee) that drew unfavourable comment from even the natural supporters of landlords. Donegall's receiver in Belfast, George Macartney Portis, wrote to his cousin the Chief Secretary in 1771: 'I doubt not your attention to the Hearts of Steel. They have burned in Mr. Upton's lands some hay within these few days and I hear Burley is about to leave his agency. The deed is bad but neither the man nor his master have my pity: both have behaved with a degree of duplicity which is abominable . . .'.³⁵

The other possibility — that Templepatrick differed in some significant way from Islandmagee — may also have something in it. Apart from the fact that local differences were both more local and more marked two hundred years ago than they were later, there were two factors of real importance affecting the former area but not the latter which must be taken into account. The first was Templepatrick's proximity to Belfast; the second the prevalence of the linen manufacture among its occupiers. The two things were closely connected, and it can be argued that their combined effect was to give a different social structure to the disturbed area, compared with one such as Islandmagee which relied on farming and fishing.

4.

Why did the trouble which began among the population of Upton's estate spread to the rest of the Donegall property in 1770 and thus become the much more formidable affair we know as the Hearts of Steel? The answer to this question lies in the way the Donegall estate was managed and its reorganisation during the later 1760s.

The property was enormous. The fifth earl inherited the town of Belfast and nearly 90,000 acres in Co. Antrim, along with the townland of Ballynafoy (or-feigh) across the

river Lagan; the whole peninsula of Inishowen in Co. Donegal (with the exception of lands belonging to the church), amounting to not less than 160,000 acres; 11,000 acres in Wexford; and valuable fishing rights, market tolls, tithes and so on. The potential income was also very large, yet the annual yield (excluding Dunbrody) was a modest £7,000 in 1750 and cannot have been much more than that in the early 1760s.³⁶ The fact is that the estate was let well below its true value. This would probably have been a sufficient motive in itself to make an active and interested landowner look for improvement. Young Donegall's purchase of Fisherwick, and his decision to embark on an expensive building enterprise there, made it essential; and since substantial sums in cash were required fairly quickly, the levying of fines was a necessary part of his plan of reorganisation.

The first step was the visit of the Donegalls to Belfast in 1765, when it was made known that new leases would be granted. The leasing powers of the fourth earl had been strictly limited, in order to prevent whoever controlled him from ruining the estate, so changes were not only to be expected from the new owner but probably to be welcomed. The next stage was a modern survey of the property by a competent surveyor. The person employed for this was James Crow, who had a substantial practice in the Home Counties (characteristically, as with architects, Donegall engaged a man of established reputation from England). Beginning in 1767 with Belfast, Crow took three years to complete the maps now preserved in the Public Record Office of Northern Ireland.³⁷ As these maps became available, each part of the property was revalued and new leases were negotiated. Many of these were later surrendered by the tenants and are also in the Public Record Office.³⁸ The new leases for the town of Belfast commenced their ninety-nine year terms from 1767 (over 200 survive, all dated 20 July of that year, when Donegall himself came to sign them); but while some for agricultural holdings near Belfast were granted in the following month, the bulk of those for Co. Antrim were not granted until June 1770. The townlands most affected by the Hearts of Steel were among these.

This pattern, which is confirmed by the evidence of the Registry of Deeds in Dublin where most of the lease documents were registered, explains why the resistance which began in a limited way on Upton's estate in 1769 became in the summer of 1770 — and not before — the wider movement known as the Hearts of Steel. The fact that the re-leasing operation took so long and affected so many people both created widespread alarm and also gave opportunity for combined action.

What was it about Donegall's re-leasing of his Antrim estate that alarmed its occupiers and apparently drove many of them to rebel? There was no public advertisement of the farms, with an invitation to all comers to bid for them, such as Upton and others had employed. The size of the estate put this out of the question in any case. Nor does Donegall appear to have demanded sealed bids from competing proposers, with any second bid ruled out, which was sometimes used as a way of forcing up the price. We do not know exactly how the revaluation was carried out, but it appears from later references in the agents' correspondence that the fines at least were fixed by negotiation with the tenants. Since the amount of the fine was related to the amount of the rent — the higher the one the lower the other — it is likely that both were fixed in this way. This was the least objectionable method of raising rents, but there may have been considerable pressure from the agents in some cases to increase the proportion of fine to rent. Some tenants later claimed they had agreed to pay larger fines than they could afford only from fear of being outbid by speculators.

The fact that Donegall's immediate tenants had to pay fines as part of the reassessed value of their holdings helps to explain why some of them sympathised with the Steelboys (though few became Steelboys themselves). Despite the passage quoted earlier from McHenry's novel, and despite all assertions to the contrary, it is certain that fines were



Figure 4. Thomas Greg and his family (A. C. Greg, Esq.).



Figure 5. Waddell Cunningham, Belfast merchant and middleman, whose house was burned by the Steelboys. (Photograph: Ulster Museum).

demanding in addition to higher rents in most cases. An agent in Belfast, writing to the chief agent in England in 1771, refers to a rule that the new rent should not be accepted from any tenant until he had also paid his fine (accepting the rent would have validated the lease). He remarks, however, '... as I see a strong probability of many, very many fines remaining unpaid for a considerable time to come, I think it will be better to take the new rent, even tho' the fine should not be paid ... for there are many who do not intend paying until compulsion be introduced'.³⁹ Elsewhere in the letters there is plenty of evidence of resistance to the payment of the fines, even among the leading middlemen, especially as economic circumstances became worse. Most people, it appears, had to borrow the money.

Because Donegall looked for part of his increased yield in the form of fines, some merchants or other moneyed speculators were able by offering large sums to secure or retain control of extensive holdings, in some cases whole townlands. This was the policy of setting 'a great scope to one man' that the *Public Journal* condemned. The prime example of these middlemen — and a chief target of the Steelboys' outrages — was Thomas Greg (Fig. 4), who in partnership with Waddell Cunningham (another target) dominated the commerce of Belfast and its neighbourhood at the time. Apart from the 72 (Irish) acres surrounding his house in the townland of Edenderry close to the town, Greg took or renewed the leases of Lisnalinchy near Ballyclare (600 acres), Ballywalter, Ballycalket and Ballylinny (480 acres) in the same area, and 140 acres in the liberties of Carrickfergus, not to mention well over 4,000 acres of Donegall's estate in Co. Donegal. Waddell Cunningham (Fig. 5), for all the hatred he attracted (his house was burned during the invasion of Belfast by the Steelboys) appears to have invested in only 150 acres in Ballymagarry, where he had a farm and a bleachyard, and 370 in Ballypalliday.⁴⁰ Significantly, however, the latter was in the heart of the disturbed area.

Contrary to the traditional story, most of the property granted to middlemen was not snatched from tenants who had hitherto held leases directly from Donegall, but was already held by the lessees or had been in the possession of other middlemen. Thomas Greg got Ballywalter, Ballycalket and Ballylinny from his father, who had bought the leases in 1757; and his largest acquisition in Co. Antrim, the townland of Lisnalinchy (where several outrages were committed, notably the houghing of twenty-three of his cattle one night in August 1770), had been held previously by another middleman.⁴¹ The extent to which speculators prevented the occupying tenants from renewing leases by outbidding them has been greatly exaggerated. It did happen in one or two instances, however, which rumour naturally multiplied.

Furthermore, the amount raised by fines has been much exaggerated. They represented only a small proportion of the new valuation of the property, the main object of which was to raise the annual rental. One piece of evidence which gives some indication of the scale of the fines demanded is a list of those still unpaid in September 1771, amounting to a total sum of just under £8,000.⁴² The defaulters number 94 and include tenants of all kinds, from Waddell Cunningham (£1,000), Shem Thompson (£1,000), Alexander Legg (£750) and William Greg (£400) down to the humble John Logan (£7). Leaving aside the dozen of £100 or more, the average amount owing was £42. These figures, and the fact that the list includes large and small tenants, suggest that rather less than £100,000 was raised in this way. Benn concluded that it was £20,000 at the outside and probably a good deal less.⁴³ This is almost certainly too low, for although there is no regular relationship between rent and fine in individual cases, in the fifty or so where both amounts are known the ratio of fines to rents is almost three to one. Applied to the rental of the Antrim estate alone this would produce a total figure of nearly £50,000, with half as much again for Inishowen, so perhaps as much as £75,000 was aimed at. The point to note is that less than £50,000 could

have been raised from the Antrim lands, instead of the £100,000 mentioned by some writers.

So much for fines. What about the new rents: were they much higher than those on neighbouring estates where conditions were similar? The earliest surviving rental for Belfast and Antrim begins in 1775 and is not complete. Fortunately there are enough of the new leases themselves to provide us with accurate information — over a hundred for land of all qualities in forty townlands (leaving aside those for Belfast and its immediate neighbourhood). The total acreage of this sample was 6,755 Irish (10,943 statute acres); the rent £2,182; the average per acre in modern money 32p per Irish or 19p per statute acre. The best and most convenient land, in Malone and Dunmurry, averaged as high as 53p (33p); the poorest and most remote as low as 15p (9p).

These figures need adjusting to take account of the fact that the rents were reduced by fining. Information about the size of fines is very incomplete, but we know what they were in fifty-four cases in which the ratio of fines to yearly rents was just under three to one. Assuming for the sake of caution, however, that the overall ratio was five to one in the case of our 102 leases — all of which were guaranteed to run for at least forty years — the average rent that would have been charged if no fine had been taken would then have been greater by one-eighth, giving a figure of 36p (22p). Even if the factor were ten instead of five, the average rent would not have exceeded 40p (25p).

Either figure compares very favourably with the average rent for leases on the Kilwarlin estate of the Earl of Hillsborough (later first Marquis of Downshire) where no fines were taken. Kilwarlin possibly had a higher proportion of good land than Donegall's property, but was similarly advantaged by the domestic linen manufacture and easy access to markets. The average rent charged in 89 leases granted during the 1760s was 56p (35p). Even the figure for the 1770s — when new rents fell because of the severe slump in linen — was much higher than that for Donegall's estate at 52p (32p).⁴⁴ A further comparison, equally favourable, can be made with the figure given by the Steelboys of the parish of Magherally in Co. Down, in a public proclamation of March 1772, as the highest *average* they could pay: 'We believe the lands of Magherally at the utmost stretch cannot be lived upon at any price beyond ten shillings [50p] by the [Irish] acre as a mean or middle price, making allowance upward and downward for better and worse'.⁴⁵ There can be no doubt that the new rents charged by Donegall to his immediate tenants were very moderate, whatever those tenants may have felt at the time.

A more serious grievance seems to have arisen from the disappointed expectations of some under-tenants who had hoped to become direct tenants. The best example of this was in the townland of Ballygammon, on the outskirts of Belfast. The townland had been held by a middleman whose lease had expired in 1764. For the next four years, while the reletting was being arranged, the rents were paid direct to Donegall's agents by the occupying under-tenants, who must have hoped to become tenants themselves. For most of them, these hopes were dashed when Stewart Banks paid the fine and got a lease of 430 acres of the land. What happened then is significant. Banks did not attempt to remove the under-tenants, but he was unable to make them pay their rents to him. By October 1772 he owed nearly £800 in rent and was being threatened with ejectment. The following April, when an ejectment decree had actually been obtained against him, he declared that he could neither obtain rent from his tenants nor money to borrow, and asked for proceedings to be delayed.⁴⁶ To cite another example, William Greg, who had acquired Ballyclaverty, still owed his fine of £400 in 1771. In 1773, about to be ejected for non-payment of rent, he declared that he had never received a shilling in rent from his under-tenants (here is another middleman who had not evicted them) because 'the confusion occasioned by the Hearts of Steel had put it out of

my power with safety to compel or even to seek payment; that every tenant had fled the premises and carried away every shilling's worth of their effects with them'; and, when he had offered them the land at the rent he himself had agreed to pay Donegall, all but one had refused. The agent Portis, in his covering letter to Greg's plea, confirmed that no rent had been got from the under-tenants, 'they having bound themselves by oath to lay waste the lands rather than subject themselves to be tenants to any person but my Lord Donegall'.⁴⁷

This attitude was not altogether new, but the wholesale re-leasing certainly brought it into the open. The growing expectations of under-tenants as distinct from tenants goes far to explain the strong feeling aroused against middlemen, who were comparatively few in number and whose holdings comprised only a fraction of the estate. It is worth noting in this connexion that the taking of fines — which gave middlemen some advantage — though common on many estates and common on the Donegall estates both in the seventeenth century and in the early nineteenth century, had been forbidden when the fourth earl was head of the family (1706-57). In the 1760s, then, it must have come as a shock, particularly to the smaller tenants and would-be tenants.

5.

On the whole, then, it does not appear that Donegall's own tenants had a great deal to complain about. Their new rents, though much increased — the income from the estates in Antrim and Donegal trebled to about £25,000 — were nevertheless still moderate, and there is no reason to doubt the truth of his agents when they remarked that few of the tenants were forced to emigrate. Furthermore, there is no evidence to suggest that Donegall or his agents were harsh or even insensitive in their attitude to those who got into difficulty. On the contrary, there was no question of eviction proceedings unless at least two years' rent was owed; and the agent John Alexander wrote to his master in June, 1773, 'I . . . shall endeavour to bring in the outstanding rents as quickly as possible tho' at the same time it will be necessary to nurse some of the poorer tenantry in particular for the future advantage of them and your Lordship, whose interest must always be inseparable'.⁴⁸ Yet the Steelboys were real enough, and by all accounts some of them came from Donegall's property. If they were not his tenants, who were they?

The answer must be that they were under-tenants of some kind. Landowners as distinct from landholders were a very small class; most landholders were someone's tenants. They were also, in many cases, landlords to tenants of their own, some of whom were landlords in their turn. This was very much the case on the Donegall estates. One of the most important features of the area where the agitation started was the prevalence of the domestic linen manufacture, which tended to encourage subdivision of farms and to drive up rents. South-east Antrim was an important area for the production of fine linen, and there were many bleachgreens along the Six Mile Water and other streams between Belfast, Ballyclare and Carrickfergus. Many of the bigger tenants were linen drapers. One tenant who described himself as a weaver managed to get the lease of 34 acres in the townland of Coggrey, but most of the tenants were 'farmers' and most of the weavers must have been their under-tenants at some level. There is good reason to believe that the existence of several layers of under-tenants is the essential clue in identifying the Steelboys and their grievances.

What evidence is there that such occupiers did indeed exist? And how was their existence affected by the reorganisation of the estate? The first point to note is that on the Donegall property — unlike many other large properties, such as Lord Hillsborough's — subdivision and subletting were not forbidden by the wording of the leases. There was thus

no formal barrier to the taking of under-tenants. This, combined with the low rents charged to tenants before 1767, meant that under-tenants could get land at reasonable rates.

As demand increased, or in order to endow their sons, farmers found it profitable or convenient to sublet portions of their holdings to smaller farmers or weavers. Some of these under-tenants in turn sublet small patches to cotters. There is even a reference in an agent's letter to 'a cotter's cotter' who had emigrated. According to Lord Townshend's informant, Captain Erskine, it was well known 'that over most parts of the county [Antrim] the lands are sublet six deep, so that those who actually labour it are squeezed to the very utmost'.⁴⁹ Whether this was literally true or not, we can believe that several layers of occupiers existed below the level of the landowner's official recognition — that is, below the tenant to whom he gave the lease and that tenant's under-tenants, who were legally liable to the landowner for their share of the rent if the tenant himself failed to pay. McHenry's reference to a 'numerous class of renters' points in the same direction. Most of those who were accused or convicted of being Steelboys were described as farmers or yeomen (and must therefore have spent at least a part of their time in tilling the soil) but so far as those who came from Donegall's property are concerned they cannot be identified as his tenants. Indeed, in the case of Upton's property at Templepatrick, they can seldom be identified even as the immediate tenants of the middleman. John Allen of Rashee wrote in December 1770 that 'all the lower and many of the middling sort of people' in his area had 'caught the contagion and are up in a kind of rebellion against their god and their King'.⁵⁰ He seems to be referring not to people such as himself, who held leases directly from Donegall, but rather to under-tenants of various degrees.

These lowly occupiers are hard to uncover in the documentary evidence. Formal written agreements were uncommon at the lower levels of subletting, partly because they were expensive. Written leases did exist, however, between Donegall's tenants and their immediate under-tenants. The largest middlemen, such as Upton and Dungannon, gave twenty-one year leases, some of which were registered in Dublin. Smaller middlemen, either gentry or merchants, did the same. John Allen, a linen merchant with other holdings elsewhere, leased most of his 90-acre farm at Rashee to four under-tenants on twenty-one year leases (and made a clear profit of twice the rent he himself paid).⁵¹ Lower down in the scale, there was a class of middlemen farmers who sublet parts of their farms on a long-term basis. John Andrews took a lease of 75 acres in Rashee and immediately gave Thomas Busby a lease of 14 acres for as long as his own lease ran.⁵² Thomas Lusk, of Dunamoy, did the same to James Wilson for 13 acres.⁵³ Mary Ree got a twenty-one year lease of her farm of 16 acres from John Gilliland, of Holestone.⁵⁴ John Brady of Grange who had a lease of 100 acres from Donegall, had several under-tenants with formal leases (we know this because his widow received a threatening letter from the Steelboys telling her to set her land to the old tenants who then occupied it and not to charge more than a certain sum for each lease).⁵⁵ Whether or not the under-tenants of these under-tenants also had leases is uncertain, but there is evidence that some of them were able to borrow money on mortgage, which probably means they had written agreements of some sort.

What all this suggests is that the social structure in south-east Antrim in 1770 was both complicated — more complicated than most historians have realised — and also delicately balanced. The position of the lower ranks of 'renters' must have been precarious at the best of times. When those above them were obliged to pay higher rents and fines — to put it another way, when the head landlord began to charge his immediate tenants something nearer the current value of his land — the plight of the small occupiers at lower levels became desperate, especially when the raising of rents was followed by three bad harvests in succession. In normal circumstances and without leaders capable of organising them and

expressing their grievance, this might have led only to the usual outrages against individuals or to an increase in emigration. As it was, they were not alone: many small tenants feared they might lose their holdings or be reduced to the status of under-tenants, many under-tenants who had hoped to become tenants were disappointed, and there was a common hatred of the activities of a few middlemen.

It is clear that the traditional story of Lord Donegall and the Hearts of Steel is in several ways incorrect or misleading. The bulk of his estate in Co. Antrim was not leased to large middlemen who bought their leases over the heads of existing tenants, let alone to only two or three who confiscated all the tenants' improvements, turned the land to pasture and drove 'the whole population of a vast district' from their homes, as Lecky said. The amount he tried to raise in fines was rather less than £100,000 (from the Antrim estate alone, much less) and it is clear that his main object was to raise the annual rental of his estate, rather than to anticipate a lot of his future revenue. His new rents, though considerably higher than the old ones, were still moderate when compared with those of a neighbouring great landowner who escaped criticism. His own tenants were not driven to emigrate by high rents and harsh treatment. Nor can he be held responsible for outbreaks of agitation outside his own estate, or even for the actions of middlemen such as Upton. In other words, he must be acquitted on many of the charges levelled against him.

Nevertheless, it can be argued that he was not entirely without responsibility for the Hearts of Steel, though his responsibility had more to do with judgment, luck, and timing than with greed or wickedness. For one thing, the very scale of his reorganisation might have been expected to cause alarm. For another, the raising of fines had unfortunate effects and provoked resistance from tenants who would not normally have been sympathetic to the agitators. Even then, the alarm and opposition might not have led to serious trouble but for the timing of the changes, which began to bite just when a run of bad harvests made many people less able than usual to cope with heavier burdens. It is true that Donegall neither created nor controlled the ranks of under-tenants who were the chief victims, but he must have been aware of their existence and it might have been prudent as well as humane to take the fact into account. He had no legal obligation to do so, however, and it is perhaps more a comment on eighteenth-century society than on Lord Donegall that the only official contact he and his agents had with these inhabitants of his property was in trying to get them convicted of their crimes when they became Steelboys.

As for Fisherwick Park, the cause — indirectly at least — of much of the trouble, it scarcely survived its founder. The younger son who inherited the English property, Lord Spencer Chichester, found the heavily-mortgaged place too expensive to keep up. After failing to find anyone to buy the whole estate, he sold it in lots in 1808. The buyer of the house itself stripped it of its costly fittings and materials before demolishing the shell, cut down most of the trees, ploughed up the lawns and turned the park into farmland. The 'palace in another land' thus rose and fell within a single generation. Ironically, Fisherwick survived only in Ireland, as a street name in Belfast and, as Fisherwick Lodge, in the house built by the second marquis at Doagh in Co. Antrim, in the very heart of the country which had once harboured the Hearts of Steel.

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 - (2) G. E. C. [ockayne], *Complete Peerage*, (1916), IV, p. 391.
 - (3) John Scott, the future Lord Chancellor and Earl of Eldon, related that his final examination in Hebrew and History in 1770 consisted of two questions, 'What is the Hebrew for the place of a skull?' and 'Who founded University College?' and that when he answered 'Golgotha' to the first and 'King Alfred' to the second the examiner said, 'Very well, sir, then you are competent for your degree'.
 - (4) *Complete Peerage*, IV, p. 392 n.
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 - (12) 'Account of Richard Bowman, Receiver . . . from Michaelmas 1797 to Michaelmas 1798' (Ibid, M761/1/6).
 - (13) See 'Abstract of title to the manor of Fisherwick . . .' for these and other details.
 - (14) Registry of Deeds, Dublin, 268/661/17184 (Donegall to Samuel Egerton, Tatton Park, Chester).
 - (15) 'An Account of Incumbrances at the Marquis of Donegall's Death on 5th January 1799 . . .', 23 Nov. 1799 (William Salt Library, Stafford, M761/1/6).
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 - (17) Quoted in W. E. H. Lecky, *Ireland in the Eighteenth Century* (5 vols., 1892). II, p. 47n.
 - (18) Yorke to Hardwicke, 7 April 1772, British Museum Add. MS. 35, 370, f. 34, quoted by E. M. Johnston, *Great Britain and Ireland, 1760-1800* (Edinburgh, 1963), p. 181n.
- Ten days earlier, Horace Walpole wrote to Sir Horace Mann:
- 'If you want any more news, you must have it from Ireland, where there is a pretty substantial insurrection of four thousand men, calling themselves Hearts of Steel. Whatever their hearts are, their hands are of gunpowder. Poor souls! they have had thorough provocation; reduced to starve, to be shot, or to be hanged. They are tenants of Lord Donnegal, driven off their lands, because they could not pay hard fines for renewing their leases'.
- (*Correspondence*, VII, eds. W. S. Lewis, W. H. Smith and G. L. Lam (Oxford, 1967), p. 391). Like most people, Walpole assumed that all Steelboys, wherever they committed their outrages, were tenants of Donegall.
- (19) Quoted by F. J. Bigger, *The Ulster Land War of 1770* (1910), p. 110.
 - (20) J. A. Froude, *The English in Ireland in the Eighteenth Century* (3 vols., 1881) II, p. 118.
 - (21) Lecky, *Ireland*, II, pp. 47, 50.
 - (22) W. K. Sullivan in R. B. O'Brien (ed.), *Two Centuries of Irish History* (1888), p. 61.
 - (23) Bigger, *Ulster Land War*, p. 53.
 - (24) J. McHenry, *The Hearts of Steel: an Historical Tale of the Eighteenth Century* (Belfast, 1846), p. 71.
 - (25) A. Young, *Tour in Ireland*, ed. A. W. Hutton (2 vols., 1892), II, p. 57.
 - (26) Quoted in R. M. Young, *Historical Notices of Old Belfast* (Belfast, 1896), p. 270.
 - (27) G. Benn, *History of the Town of Belfast* (2 vols., 1877, 1880), I, p. 162n.
 - (28) Dickson, *Ulster Emigration*, p. 74.
 - (29) W. H. Crawford and B. Trainor (eds.) *Aspects of Irish Social History* (Belfast, 1969), p. 38.
 - (30) Quoted by Bigger, *Ulster Land War*, p. 57. The passage from McSkimin's MS is quoted in full in R. M. Young, op. cit.
 - (31) *Belfast News Letter*, 3 Jan., 1769.
 - (32) J. McHenry, *The Hearts of Steel*, p. 93.
 - (33) Allen to Macartney, 10 Dec. 1770 (Macartney papers, PRONI, D. 572/3/122).
 - (34) Registry of Deeds, Dublin, 262/637/177661.

- (35) Portis to Macartney, 9 Oct. 1771 (Macartney papers, PRONI, D. 572/2/53).
- (36) PRONI, T. 3085/1.
- (37) 'Plans of the Earl of Donegall's Estates in the Baronys of Belfast and Antrim . . .', PRONI, D. 835/1/3.
- (38) L'Estrange and Brett, Donegall papers in PRONI, D. 509/156-557.
- (39) Alexander to Talbot, 7 Aug. 1771 (Donegall Letter Book, PRONI, T. 1893).
- (40) Donegall papers, PRONI, D. 509 (leases); and Registry of Deeds, Dublin.
- (41) Bigger, *Ulster Land War*, p. 28 says that John Greg 'bought by public auction the tenants' lands . . . from Lord Donegall', and that the action was much resented. Ballylinny was in the hands of Thomas Greg as early as 1760.
- (42) Alexander to Talbot, 30 Sept. 1771, enclosing 'Account of Fines which are not yet received by George Portis Esqr on Acct. of the Earl of Donegall' (Donegall Letter Book, PRONI, T. 1893).
- (43) Benn, *Belfast*, vol. 1 pp. 612-3n.
- (44) W. A. Maguire, *The Downshire Estates in Ireland, 1801-1845* (Oxford 1972), p. 39. The fact that the term of years in Donegall's leases was 41, to Hillsborough's 31, makes the comparison even more favourable.
- (45) Bigger, *Ulster Land War*, p. 102.
- (46) Alexander to Doherty, 17 Ap. 1773 (Donegall Letter Book).
- (47) Greg to Portis and Portis to Talbot, 21 Ap. 1773 (ibid.).
- (48) Alexander to Donegall, 16 June 1773 (ibid.).
- (49) Erskine to O'Neill, enclosed in Townshend to Rochford, 15 Ap. 1772, (PRO, London, S.P. 63/435, no. 82c); quoted by Dickson, *op.cit.*, p. 72.
- (50) Allen to Macartney, 10 Dec. 1770 (Macartney papers, PRONI, D. 562/3/122).
- (51) *Belfast News Letter*, 27 Jan. 1785.
- (52) Donegall papers, PRONI, D. 652/272A and 269.
- (53) Registry of Deeds, Dublin, 281/39/179928.
- (54) Ibid, 280/366/181907.
- (55) Bigger, *Ulster Land War*, p. 103.

EARLY PRINTED CHARTS OF IRISH WATERS

R. S. J. CLARKE, M.D., Ph.D., F.F.A.R.C.S.

The subject of early maps of Ireland has been well covered in the paper by Michael Andrews, given to the Society in 1922.¹ The present paper will not go over the same ground, but will rather cover the succeeding period from c. 1575 to c. 1750, and it is concerned mainly with sea-charts. However, these should be seen in the context of the great printed atlases, the first of which was Abraham Ortelius's *Theatrum Orbis Terrarum*, published in Antwerp in 1570. His map of Ireland did not appear until the edition of 1573 and is based on the outline by Gerard Mercator in his 1564 map of the British Isles. Mercator himself produced five Irish maps in his *Atlas* of 1595. The other sixteenth century cartographer of Ireland was Baptista Boazio, whose beautiful map of 1599 in the British Library is widely known in reproduction. He has a special interest for Belfast because the Linen Hall Library has a smaller and perhaps unique version of this map published in 1591.

The first sea-charts were known as *portolani* or "portulan charts", and were produced by Italian and Catalan cartographers from the thirteenth to the fifteenth century, to cover the coasts, bays and harbours of western Europe. They are usually on a whole sheepskin or goatskin, with the names of the towns and rivers arranged along the coast line, and flags of the various states in bright colours. *Isolaria* or guides to the islands, contained small maps and poetic descriptions, and provide some of the first printed maps of Ireland. The versions by Porcacchi (1572) and by other Italians of the period have at least some of the features of charts.

The Dutch dominated the publication of the early printed sea-atlases as in the case of land-atlases, the first systematic chart-book being by Lucas Janszoon Waghenaeer.²

Dutch Charts

Waghenaeer was born at Enkhuizen in 1533. It was a prosperous town, with 160 boats in 1550, engaged in fishing, smuggling and piracy, and it was one of the first to declare for Prince William against Spain. Waghenaeer became a ship's pilot and in this way acquired a wide knowledge of the waters of Northern Europe. In 1579 he obtained a post in Amsterdam as "receiver of licence and convoy monies", and spent the rest of his life producing his two great guides to navigation, *Spiegel der Zeevaert* (The Mariner's Mirrour) in 1584, and *Thresoor der Zeevaert* (Treasury of Navigation) in 1592, both of which ran into many editions. Both consisted mainly of sailing directions (rutters) with a relatively small number of charts. These were the first printed charts to give regular soundings at half-tide and adopted the practice of showing harbours on a larger scale than the rest of the coastline.

Spiegel der Zeevaert was first published in Dutch by Christopher Plantin of Leyden in 1584. It is a beautifully produced folio volume, with the maps coloured in the earlier editions. The first Latin edition came out two years later and the English edition, *The Mariner's Mirrour*, appeared in 1588. The only Irish chart was not introduced until 1596 (Fig. 1). It shows the coast from Kinsale past Waterford and Dublin to Dundalk, with a large central inset of Galway and Limerick. There are three ships and two fish, as well as four compass roses and titles in Latin and Dutch on the chart and the inset. On the back is a description of Ireland including the comment "There are all sort of tigers but they are so fat that they cannot run as fast as those that are found in other countries."

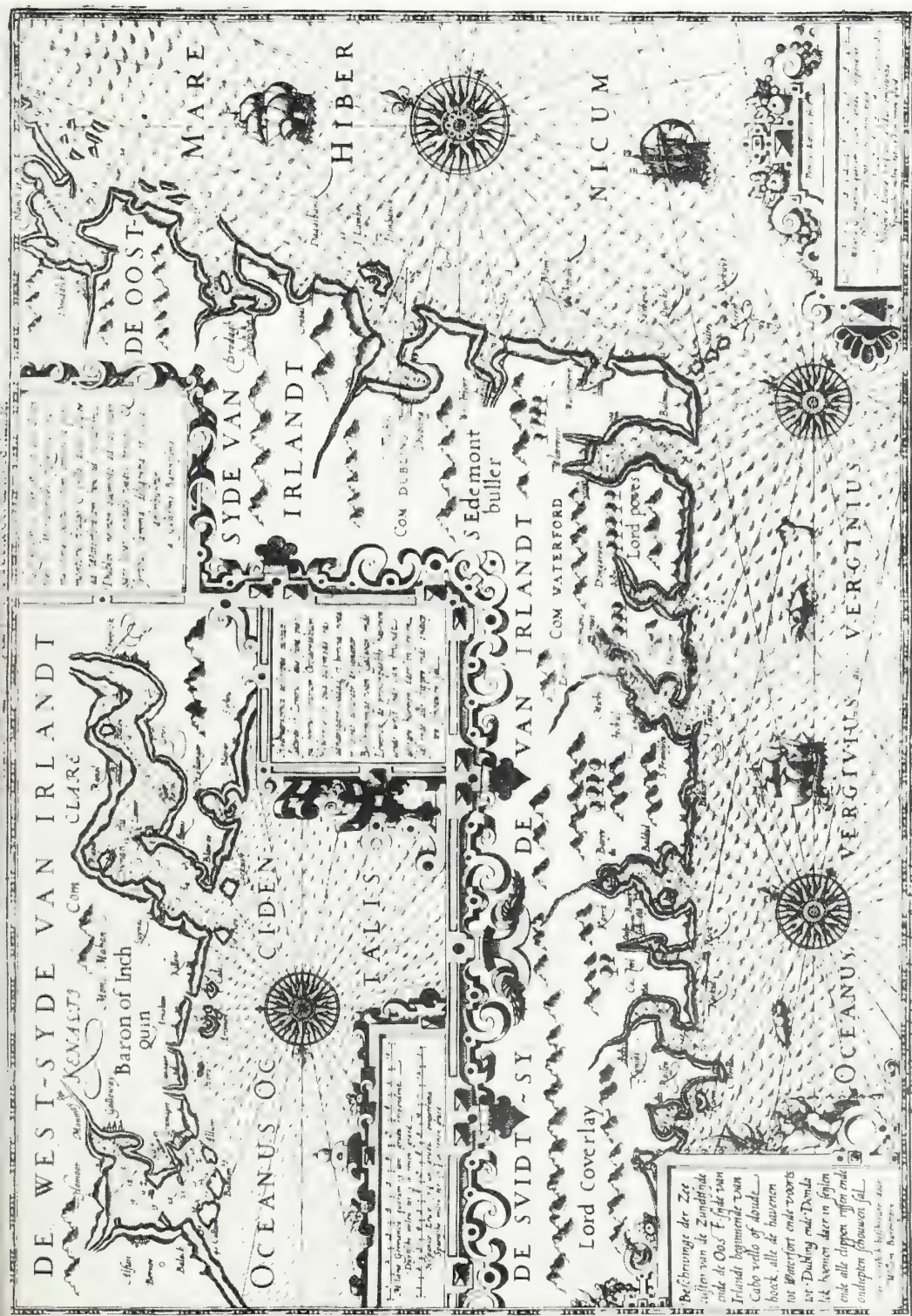


Figure 1. Chart of the south-east of Ireland with inset of Galway and Limerick, from Lucas Janszoon Waghenaeer's *Spiegel der Zeevaert* (1596). This copy has the headings at top and bottom peculiar to the French editions.

Waghenaer brought out his *Thresoor der Zeevaert* in Leyden in 1592, with a similar Irish chart, which therefore predates the chart described above. This book is an oblong folio and, being a simpler production altogether, was more useful at sea and is therefore scarcer.

Waghenaer's charts so dominated navigation that the English sailors referred to their chart book as a "waggoner" up to the time of Pepys and, while they regretted their dependence on the Dutch, there was no substitute for eighty years.

The next chart-maker to cover Ireland was Willem Janszoon Blaeu. He was born at Alkmaar in 1571 and also published two books of charts, *Het Licht der Zeevaert* (1608) and *Zeespiegel* (1623), as well as his land-atlas, the *Atlas Novus* (1654), which was later to be enlarged by his son Joan to the twelve-volume *Geographiae Blavaniae*. Again, there were many editions of Blaeu's books, and each usually appeared in English, French and Dutch. The feature of these early Dutch maps and charts is that they were unchanged from edition to edition (or almost so), but when there was type on the back it varied in language and was re-set for each edition.

Het Licht der Zeevaert is an oblong book like Waghenaer's *Thresoor*, with only one Irish chart, clearly based on Waghenaer's but re-arranged. The verso is blank in the early editions but later is found with English or French text.

There is, however, a major variant of this chart resulting from the fact that Willem Blaeu's copyright was limited to ten years from 1608. In 1620, Jan Jansson produced a pirated edition under the same title, which also ran to many editions and different languages. The attempt to deceive was only partial, however, since there are differences in the appearance of Jansson's chart. For example, in the latter the scales are arranged horizontally rather than vertically, the verso is blank and there appear to be no variations from edition to edition.

The *Zeespiegel* is a small volume and the eleven Irish charts (nos. 74-84) covering the Irish coast are folded down the middle. Their importance is that they are the earliest charts to show the "Connaught bulge", and this was in 1623, long before William Petty's survey carried out in the 1650's and not published until 1685. Although the outline of Ireland in chart 74 is rather elongated, there is a north coast to Mayo which no other cartographer of the period portrayed. The first is the only chart of the set to have text on the back, but the words are simply a title-page to the Irish section. Later the whole set was used unfolded in a new volume entitled *The Sea Beacon* (1643) or *De Groote Zeespiegel* (1655). Here the text in English or Dutch is printed sideways on the back of the charts.

Some distinctive features of these regional charts should now be mentioned. Firstly, there was the practice of showing the land at the top whatever the orientation, which we now find very confusing but which did make sense to the coastal trader. Secondly, there was a multitude of rhumb-lines covering the sea. These are radiating lines at the 16 or 32 compass points to help the seaman to take bearings, though their actual position on the chart is quite arbitrary. Thirdly, all these charts were drawn on Mercator's projection, which enabled the mariner to plot a straight course on the chart, regardless of the curve of the earth's surface. The detailed charts of the seventeenth century do not usually have a scale of latitude, but the general charts do include it since its calculation was possible with instruments such as the astrolabe and quadrant. Estimation of longitude had to await the invention of an accurate chronometer towards the end of the seventeenth century and scales, relative to the Isle de Fer in the Canaries, begin to appear on charts c. 1700. There was, however, much confusion about the zero reference point, as can be seen from the French charts described later, and the Greenwich meridian was not adopted universally until 1884.

The next important Dutch cartographer was Jacob Aertsz Colom, born in 1600 and a strong competitor with Willem Blaeu. His main pilot-guide, called *De Vyerighe Colom*

(The Fiery Sea-Columb or lighthouse, a play on his name), appeared in 1632 with further editions until 1668. There were six charts covering different parts of the Irish coast, though in the early editions two were mounted on one page. This book, like those of Blaeu, appeared in Dutch, French and English. Colom produced 17 different charts covering parts of the Irish coast in this or *The Upright Fyrie Colomne*, but many are re-drawings of his own earlier versions. He also produced a chart showing Ireland and the west coast of Great Britain, with west at the top, a format used later by Doncker, Goos, Jacobsz and van Loon and probably the commonest type of early Irish chart.

A little younger than Colom is a group of Dutch chart-makers who are confusing because, while they competed at times, they also used each other's name, plates and even the title-page of their atlases. The group included Anthony (Theunis) Jacobsz (1606-50) who gave himself the name of the Lootsman or pilot, Pieter Goos (1615-75) and Hendrik Doncker (1625-99), but it is difficult to be sure of the role of each even when one cartographer's name appears on a chart. Theunis Jacobsz covered the coast of Ireland in four sheets in a volume entitled *De Lichtende Columne Ofte Zee-Spiegel*, first published in 1643. There were two sets of plates, the first numbered 41-44 and a later set (produced by his sons in 1666 after the first set had been sold to Pieter Goos) which was numbered W 14 — W 17. The sons of Theunis, Caspar and Jacob, carried on the business and also brought out a smaller and rarer volume *T Nieuwe en Vergroote Zee-Boeck*, published in 1652 with seven Irish charts.

Hendrick Doncker was another Amsterdam bookseller and as well as bringing out his chart of Ireland and the Irish Sea, and printing the set of four regional charts from Jacobsz's plates, he produced his own six charts of Ireland in the *Nieuw Groot Stuurmans Zee-Spiegel* (1664). The regional charts of both Doncker and Jacobsz were originally produced without scales of latitude, but later editions are found with a bar drawn diagonally across them marking the latitude.

The last of the great Dutch chart-makers was Johannes van Keulen who was born about 1654 and founded a publishing house which went on producing atlases until about 1800. His *Zee Fakkel* (Sea Torch) came out in 1681 and the family continued to add or alter charts throughout the whole period. The whole book is large and ornate and these are the most decorative of all Dutch charts.

The general chart of Ireland and the western half of Great Britain (No. 11) is unusual in that it is orientated with east at the top. It has the title on a cloth draped between two trees, below which is a sleeping shepherd with his flock. It had various minor additions, the most interesting of which is the island of "Brazil" in mid-Atlantic, which appeared c. 1708. The chart of the Irish Sea (No. 16) showing west at the top, is fairly inaccurate but the alterations for the 1704 edition added soundings off the Lancashire coast and improved the appearance of the Isle of Man. The little river Farset at the head of Belfast Lough is made to look as large as the Lagan. The chart which includes Northern Ireland (No. 17) is concerned mainly with the west coast and islands of Scotland. It had only some changes in wording for its second state. The chart of the west coast of Ireland (No. 18) is noteworthy because in its first state like other Dutch charts it had no soundings in the Shannon. They were added in 1704 presumably having been taken from the French *Neptune Francois* chart of 1693 described later. The fourth regional chart covering the south coast (No. 19) has a particularly fine scene with a cow being milked, a milkmaid making butter with a plunge-churn, and the butter being packed into barrels, while two rather elegant gentlemen look on. It had a considerable number of soundings added for 1704, and a large sandbank was inserted in the third state of 1728 (Fig. 2).



Figure 2. Chart of south-west Ireland (third state, 1728) from Johannes van Keulen's *Zee Fakkel*.

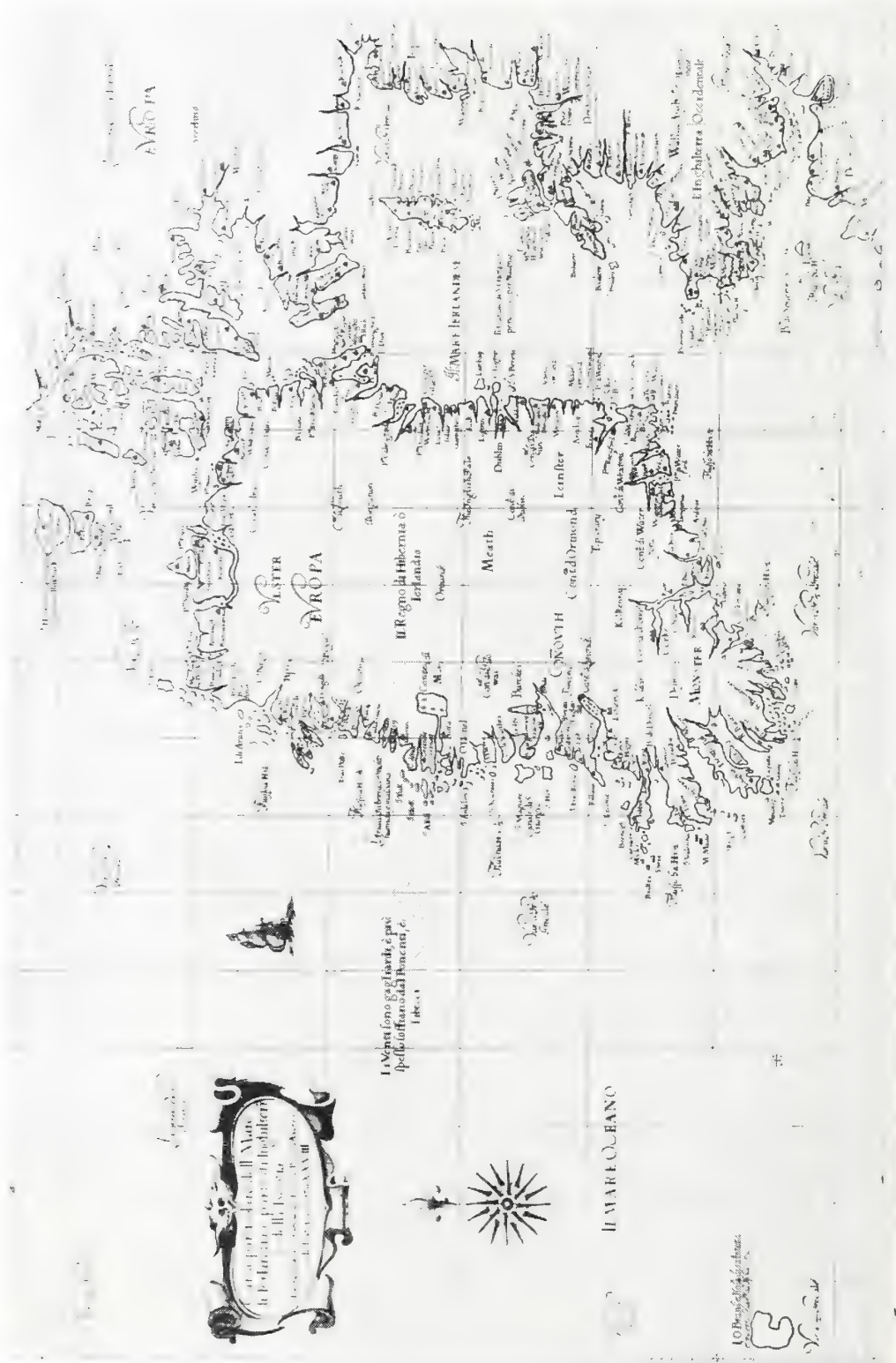


Figure 3 Chart of Ireland from Sir Robert Dudley's *Dell' Arcano del Mare* (1646).

The deterioration of the van Keulens' work can be seen in the large rough charts produced in 1728-34, one of the north coast of Ireland and western isles of Scotland, the other of Ireland and the Irish Sea. The last has such inaccuracies as the "islands" of Ards, Island Magee and northern Inishowen, which have crept into several eighteenth century charts. The family also made some small charts in 1754, of Carlingford Lough, Dublin Bay, Belfast Lough and Lough Foyle. The first three of these are clearly copied from Greenville Collins's charts, and the last from one in the Seller/Mount and Page *English Pilot* (see below). There are two states, the first being signed by Gerard van Keulen who took over the business when his father Johannes died in 1715. The second state of c. 1780 is signed by Gerard's grandson, G. Hulst van Keulen. As the century progressed the paper used also deteriorated and the atlas of 1802 in the British Library is a truly "economy" production.

Dell' Arcano del Mare

The first British sea-chart atlas was *Dell' Arcano del Mare* (The Secrets of the Sea), produced by Sir Robert Dudley in 1646. As well as being the first it is generally regarded as the most beautiful, and this recognition is probably a fitting reward for one who suffered exile and many setbacks from the British crown. He was born in 1574, son of Robert Dudley, Earl of Leicester and Lady Douglas Sheffield, who may or may not have been Leicester's wife at the time.³ In 1602 young Robert brought the question of his legitimacy to the courts and owing to the ill-will of James I and his favourites, lost the case. This decision so enraged him that he fled the country with one of the queen's ladies-in-waiting, leaving behind a wife and several children. As a result of this series of impetuous actions he lost his title, lands and income in England, and only the generosity of the Grand Duke of Tuscany saved him from penury.

However, the necessity to work spurred him on to re-organise the navy and harbours of Tuscany, and after forty years of work in this field he was able to produce his *magnum opus*. The book, therefore, is not only an atlas but a treatise on navigation, equipping a navy, boat-building and other topics. The chart of Ireland covers a double-page and, although the outline of Ireland is very crude, the engraving and particularly the lettering is a work of art (Fig. 3). Altogether the production of the six Books of *Dell' Arcano del Mare* took twelve years and consumed 5,000 pounds of copper for the plates. Dudley died in Florence in 1649 and a second edition of the atlas came out in 1661 — evidence that it was much appreciated in his adopted country.

French Charts

All the marine cartography of France is concentrated in the large and detailed charts of *Le Neptune Francois*, first published in 1693 and later revised. The volume was an official publication under the patronage of Louis XIV, and unfortunately for descriptive purposes no one cartographer was responsible. The principal editor was Charles Pene, who had the assistance of Sauveur and de Chazelles as well as many other French surveyors. The atlas has a superb title page and is well engraved, but lacks the decorative aspects of van Keulen's atlases.

Le Neptune Francois has three charts covering the coast of Ireland. The first includes the northern one-third as well as the Western Isles of Scotland as far north as Rockall. The second is a general chart of all Ireland and the Irish Sea, with north at the top, but has a large inset of the Dee estuary as far as Chester and Holt. It includes the engraver's name, "H. van Loon". The third chart covers Galway Bay and the Shannon estuary as far as Limerick, and the inclusion of such a detailed chart of the west of Ireland is somewhat surprising. The

explanation apparently⁴ is that the French Ministry of Marine required an exact chart of the area and in 1690 sent Lieut. Lambely, hydrographer, in a light frigate to survey the Shannon estuary and M. Monteguy to survey Galway Bay. The reason for such a survey may be related to Louis XIV's support for King James II against William, and the first French landing took place at Kinsale in March, 1690. One result of the French survey was the naming of the outermost of the Aran Islands (now known as Brannock Islands) the "Isles aux Lapins". This chart has a large inset of the Kinsale area and the engraver's name, "C. A. Berey".

The most confusing feature of this atlas and its charts is that in the same year Pierre Mortier, of Amsterdam, and Hubert Jaillot, of Paris, had all the plates re-engraved and a pirated edition was sold, with text in Dutch, French and English.⁵ The geographical aspects of the charts are exact copies but it is not difficult to distinguish the original from the copy by other features. The most distinctive is the presence of a watermark of a double-headed eagle and the name "BYCOLOMBIER", Colombier being one of the great paper-makers of the Auvergne.⁶ The chart of north Ireland and the Western Isles can also be distinguished by the smaller size of the apostrophe in "D'ECOSSE" in Mortier's edition. The other two charts are more simply distinguished by the absence of the engravers' signatures in the lower left corners in the Mortier-Jaillot editions. The other curious difference in the latter is the addition of the phrase "Levée et Gravée par Ordre du Roy. A Paris. 1693.", as if the copyist were determined to make the copy look more officially French than the original. There are in fact, four variants of the Dutch editions of the Galway-Shannon chart, differing only in the exact wording of the title in the various printings, which included a reprint of 1703.

By 1751 the French Depot des Cartes et Plans de la Marine decided that a new edition of *Le Neptune Francois* was required. Although the original plates had become dispersed, as many as possible were brought together and two missing plates, including that of Galway-Shannon, were replaced by new ones. Multiple scales of longitude were now added relative not only to the Isle de Fer as before but to Paris (the observatory), Teneriffe, Cape Lizard and London (St. Paul's). The new publication was issued in Paris in 1753 by a new editor, Jacques Nicolas Bellin, who describes the history of the atlas in the preface, making it clear that the charts were unchanged in detail from those of 1693.

The next recognisable change was that in the edition of 1773 a stamp with "Depot de la Marine" and a price were added. This at first read "Prix trente Sols" but after the Revolution (1789) rose to "Prix cinquante Sols". At this later stage also the royal symbol, the fleur-de-lis in the compass rose, was replaced by the cap of liberty, and those in the stamp either omitted or replaced by "R.F." However, the only Irish chart seen in this post-revolutionary version is that of Galway-Shannon. A copy of this has also been seen with the fleurs-de-lis on compass rose and Depot stamp scored out in ink, presumably during the Revolution. The atlases of this period are therefore mixed in their map-types.

In 1757, having reprinted the charts of the old *Neptune Francois*, Bellin clearly felt that a new and more accurate set covering the British Isles was required. He therefore produced five new charts, of South England, North England, South Scotland, North Scotland and Ireland. All but the sheet of North Scotland contain parts of Ireland. All have the multiple scales of longitude as well as some rococo decoration in the title cartouches. Some time after the first edition, perhaps about 1773, a stamp of the "Depot de la Marine" and a price were added. After the Revolution, changes similar to those described above occurred in this group of charts also.

British Charts

The rising importance of the British navy and merchant fleet after 1660 eventually gave an impetus to the production of British charts. However, the first cartographer who undertook the task, John Seller, never had the necessary financial resources. He was born about 1630, the son of Henry Seller, a cordwainer of Wapping.⁷ He was apprenticed in the Merchant Taylor's company to Edward Lowe, an instrument maker, and when he became a freeman established himself at "The Mariners Compass and Hour Glass at the Hermitage Stairs in Wapping". He remained there all his life as an instrument maker and, less successfully, a publisher. His career was nearly cut off in 1662 when, being a Baptist, he was arrested on a charge of high treason, and was only released with the help of the Duke of York.

Seller produced various chart books including *The English Pilot, Southern Navigation*, in 1672, with three pages of Irish charts. These cover the whole Irish coast in six sections, but they are certainly fragmentary and congested. Pepys stated⁸ that Seller's book "was the very same platts with the Dutch, without a Dutch word so much as turned into English, much less anything in the maps altered". This is harsh because the Irish charts at least, are fully titled in English and their appearance suggests rather that they are new plates, badly designed and engraved. He had certainly carried out no new survey, but neither had anyone else. One of Seller's problems was that he was not popular with the other map-sellers who, as Pepys stated again, "did article against Seller, but seeing his interest was too strong for them, they were forced to sit down and be quiet".⁹

Seller also produced a chart of Southern Ireland and St. George's Channel which was published in his *Atlas Maritimus* (1675), as well as a small map (unsigned) entitled simply "Ireland" from *Camden's Britannia Abridg'd*.

John Seller went in and out of various partnerships and was constantly on the verge of bankruptcy,¹⁰ but his atlas lived on long after his business had been sold and he had died. From 1701 *The English Pilot* was re-issued in a new series, with different charts, though it is difficult to be sure who was actually responsible for them. The charts are usually attributed broadly to the publishers, Mount and Page, and, with changes in the family membership, the firm continued to publish *The English Pilot* until 1792. It lasted, therefore, for a hundred and twenty years with the same title, and ninety years with essentially the same charts.

There are seven Irish charts, one of which is general and one is of Cork Harbour by Collins. The chart of Ireland and the Irish Sea has a better outline than the earlier Dutch charts, but errors have crept in, such as a channel cutting off the Ards peninsula. This was not present in the earlier maps or charts and it is strange that it could have been repeated for nearly one hundred years without correction. It seems to have first appeared with Petty (1685) who shows a kind of river with a bridge at Newtownards, across the five-mile neck of land, though this land in fact rises to 200 feet. The plate of this chart had developed a large crack south of Waterford by 1734 and a new plate was prepared for the 1743 edition, with the addition of the imprint of Mount and Page in the lower right corner. Another new plate was prepared in 1750 by James Barlow for George Grierson, printer and bookseller "at the King's Arms & 2 Bibles in Essex St., Dublin". Grierson's edition was reprinted by David Hay in 1772.

There are charts of the South-East, North-East, North-West and South-West coast, all of which appear in various states and re-issues, but the first is also seen in versions without and with the inset of Dublin Bay. One of the most accurately surveyed areas is Galway Bay and the Shannon Estuary, and it is immediately apparent that the detail is taken from *Le Neptune Francois* chart of 1693. The *English Pilot* chart includes not only the soundings but the name of the "Is. of Lapins" mentioned earlier, the cartographer presumably not

understanding its meaning. Apart from indicating the chart's probable source, it strongly suggests that the edition of *The English Pilot* in the British Library, dated 1690, cannot be as early as this, or at least that this chart was added later.

John Thornton (1641-1707) was a contemporary and one-time partner of John Seller, who produced three different charts of Ireland/Irish Sea between 1685 and 1703. They were published in his *Atlas Maritimus* or his *Third Book of The English Pilot* and one is even found in a 1760 copy of Seller's *English Pilot* (British Library). There were second state versions of two of the charts with the name John Thornton replaced by that of his son Samuel.

The first real surveys of the Irish coasts were by Greenville Collins, a Captain in the Royal Navy who in the 1670s had been in the South Seas and the Mediterranean surveying and sketching.¹¹ It was by now obvious that Seller's *English Pilot* was not what the country needed, so in 1681 Collins was appointed Hydrographer to the King, to survey the coasts and inshore waters. Charles II supported the scheme with money and a suitable ship and Collins was appointed a Younger Brother of Trinity House in the same year. The survey was always short of money and, since land mapping was also needed, it lasted until 1688. Collins used good land maps when available and Pepys reports a conversation with Collins who "... says and did upon view by comparing the maps shew me by several instances that our sea coasts were better laid down by Speed than they are on our Waggoner".¹² This, of course, would not be true of Ireland, where Speed's maps are very inaccurate.

Collins began surveying the English coast in 1681 and finally in 1687 crossed the Irish Sea to cover the Isle of Man, Belfast Lough, Carlingford Lough, Dublin Bay, Cork and Kinsale. The charts were published by Mount and Page in *Great Britain's Coasting Pilot* in 1693, which continued to be reprinted until 1792. The Irish group of charts includes St. George's Channel as well as the above areas. It gives a fairly rough outline of the Irish coast, though at least the Ards peninsula is firmly joined to the mainland. The only manuscript chart of Collins's Irish survey is that of Dublin Bay (in the British Library), which marks also the roads to Hoath, a Saltworks on the North Bull, etc. It does not contain any decorative work, and in fact St. George's Channel, Carlingford Lough and Kinsale were printed first without the dedication, though these versions only occur in some of the first editions. The dedication does appear in the first printed version of the Dublin Bay chart, but the town plan is absent from some of the early copies.

Carlingford Lough is well surveyed, with coastal profiles of the Mourne and Carlingford Mountains. There are hundreds of these scattered through the text of all the Dutch chart-atlases, though in more recent charts they are inserted into spaces in the chart itself. Belfast Lough, or "Carreckfergus Lough" as it is called on the chart, is probably the most attractive of Collins's Irish charts, with its view of Carrickfergus Castle from the sea (Fig. 4). In addition the recent campaigns in Ireland led to the inclusion of various notes such as: "Schomberg landed 1689" at Bangor, "King Will. landed 1690" at Carrickfergus, and "Here King Will. Army landed" at Whitehouse. The engraving of the castle has a caption giving details of the vessels arriving there with King William III, and the military cartouche encloses a dedication to King William.

The chart of Cork Harbour, for some unknown reason, was omitted from the first edition of *Great Britain's Coasting Pilot*, but does occur in *The English Pilot* of 1690. It appears in Collins' *Pilot* from 1723 onwards, though a new plate with a more decorative view of Cork Harbour was introduced in 1744. In addition, there was an Irish version produced for Grierson's edition of *The English Pilot* (1750). Finally, there was a totally new chart produced by the Rev. John Lindsay and used in both Seller's and Collins's *Pilot* from 1759. The chart of Kinsale occurs in all the editions of *Great Britain's Coasting Pilot*, though with some variations.

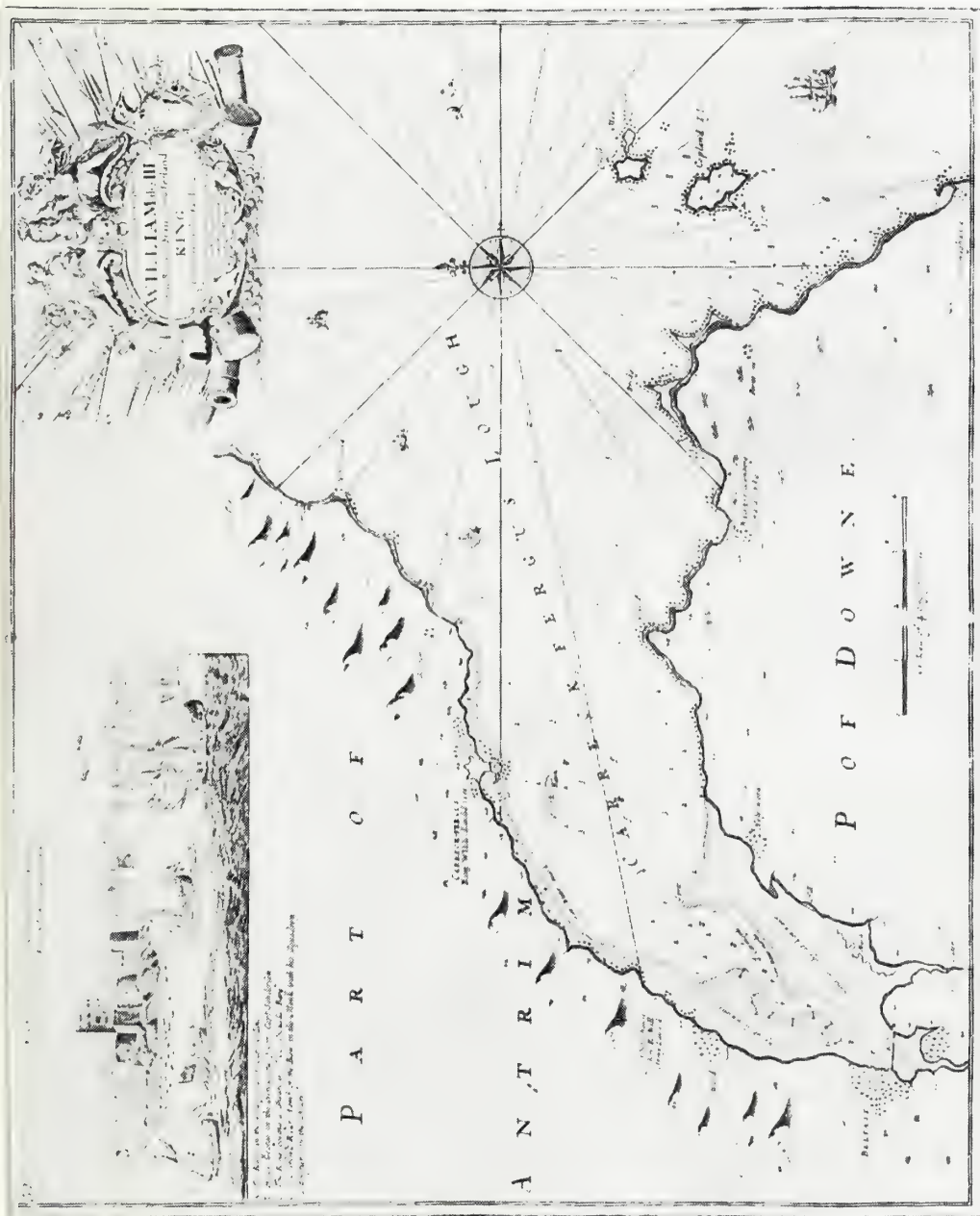


Figure 4 Carrickfergus Lough from Captain Greenville Collins's *Great Britain's Coasting Pilot* (1693).

Most of the charts of Collins's *Great Britain's Coasting Pilot* were copied for a French edition which was published in 1757 and edited by Jacques Nicolas Bellin. It includes St. George's Channel, Belfast Lough, Cork and Kinsale and the charts, though plainer than the originals, are more finely engraved.

There was only one important chart produced by an Irish surveyor during the period under consideration — William Doyle's chart of Waterford Harbour. He surveyed the harbour in 1736 and also discovered in the same year the Nymph Bank, a sandbank abounding in fish and marked on many contemporary general maps of Ireland. The chart was published on a large scale, with many subscribers' coats of arms, in London in 1738 and later in different versions in both London and Dublin.

However, the first great surveyor of all Ireland comes outside our period. Murdoch Mackenzie, senior, covered all Ireland in 28 charts which were published in his *Maritim Survey of Ireland and the West Coast of Great Britain* (1776). Joseph Huddart surveyed it again later in the century, the charts being published by Sayer and Bennett and by their successors Laurie and Whittle. In the latter half of the century the various local surveyors also came into their own, such as Samuel Andrews for Cork, John Cowan for the Shannon, William Irwin for the Kenmare River, George Johnston and James Kennedy for County Down, James Lawson for Belfast Lough, and Bernard Scalé and William Richards for Dublin. The charts became accurate, and with that we lose the beautiful cartouches, the ships, the fish and the imaginary islands which make the study of early charts so fascinating.

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8th December, 1981

SIR ARTHUR RAWDON (1662-1695) OF MOIRA: HIS LIFE AND LETTERS,
FAMILY AND FRIENDS, AND HIS JAMAICAN PLANTS

E. CHARLES NELSON, B.Sc., Ph.D., F.L.S.

National Botanic Gardens, Glasnevin, Dublin 9, Ireland.

In his preface to *A voyage to the Islands Madera, Barbados . . . and Jamaica, with the Natural History . . . of the last of those Islands*, Sir Hans Sloane wrote that “. . . Sir Arthur Rawdon . . . observing the great variety of Plants I had brought with me from Jamaica, sent over Mr. James Harlow . . . to bring the plants themselves alive to him, for his Garden at Moyra in Ireland. This Mr. Harlow perform'd and there they grew and came many of them to great perfection . . .”¹ Sloane implied that the impetus for Harlow's commission was Rawdon's interest in his herbarium of Jamaican plants, but study of the extant correspondence between Rawdon and Sloane reveals a different story, and shows that Rawdon, a keen, competent horticulturist, had an interest in importing Jamaican plants before Sloane returned from Jamaica.

In this paper, the correspondence between Rawdon and Sloane is published, some of the letters for the first time,² and the life and background of Sir Arthur Rawdon are described. Relevant letters from his family and friends, including William Sherard, are also included, so that the extent and importance of Sir Arthur's botanical interests can be assessed.

Family background

Arthur was the third, but eldest surviving son of Sir George Rawdon and his second wife Dorothy, eldest daughter of the second Earl of Conway.³ George Rawdon was involved in British politics in the mid-seventeenth century; he fought against the Irish during the 1641 rebellion, and later was active in the restoration of King Charles II. After the Restoration, Rawdon settled on estates in the north of Ireland centred around the present town of Moira in County Down; these were granted to him for services rendered before 1649.⁴ As he was Conway's agent, Rawdon managed his estates in Ireland and reported regularly to Conway. Their correspondence shows that George Rawdon was interested in gardening, at least in the proper cultivation of orchards; he obtained scions of apple cultivars from England and had grafting carried out at Moira.⁵ No other plants are named so there is little evidence that George Rawdon had any considerable interest in ornamental horticulture. George Rawdon was created a baronet in May, 1665; he died in August, 1684, and was buried in Lisburn, with much pomp.⁴

Arthur's childhood

Arthur was born on 17 October, 1662. He does not seem to have enjoyed good health, either as a child or in later life. The first mention of Arthur in letters from Lord Conway to Sir George Rawdon is in one addressed from London on 12 December, 1670, when Conway said that

. . . in that [i.e., a previous] letter I told you that Arthur had but two fits of ague, and was very well, as I suppose he is at this present. But Dr. Ridgeley⁷ was very sorry he went not into France this winter apprehending his cough, and danger of a



Fig. 1 Portrait in oils of Sir Arthur Rawdon. The present location of this portrait is unknown (from a photograph in the archives of the National Portrait Gallery, London).



S^r Arth^r Rawdon *Rawdon Hall in the*
Cou^{ty} of York Bar^t *Magr^y in the R^m*
of Ireland, Gen^l of *the Shire for the*
County of Downe *in y^e S^d Kingdom*
Obijt *Etat. 34.*

Fig. 2 Portrait of Sir Arthur Rawdon, engraved by J. Faber (jun.) in 1745 for the *History of the House of Yvery* (by courtesy of the British Library, London).

consumption, as things are not to be dallied with, but of the highest concernment to him to be prevented in time. Van Helmont⁸ and he are preparing things for him, and will give direction how he shall be ordered to France, which his Governour who studies Physick, will be very capable to understand and pursue . . .⁹

In April, 1671, Francis Conway wrote to his brother, Lord Conway and mentioned that I have seene my Nephew Arthur he looks very well. I question not but he will learn French very quickly.¹⁰

By June, Arthur and one of his tutors, a Mr. Dethick,¹¹ were in France for on 20 June Lord Conway wrote to Sir George Rawdon, enclosing letters from Arthur and Dethick, and saying that

. . . they are all well at Orleans. I never omitted to send you their letters as soon as they came to my hands. He [Dethick] hath laid out a matter of 8L. to 10L. for me in French books, which I intend to return to him very suddenly [*sic*], and whensoever you please to write to them, I will convey your letters. I intend to give Arthur a ruby ring from my mother's legacy . . .¹²

It is not clear if the French books were for Conway or for Arthur's education, nor is it known how long Arthur and his "governour" remained in France. On 23 June, 1676, Conway wrote to Sir George; of the three young Rawdons he said:

. . . your sons are all settled for this year. I send you Ned's [Edward] letter and accounts for his brother John's expenses. Everybody that has seen Arthur lately speaks mightily of his improvements, and believe that if he recovers his health he will be a man of extraordinary parts.¹³

John (b. 1656) was killed in France in the autumn of 1676, but the news did not reach his father for many months. In the same country a short time later, Edward (b. 1655) was fatally wounded in a duel; the news of his death reached Ireland early in March, 1677.¹⁴ About the same time, their mother, Lady Rawdon died. Henry More writing to Lady Conway in April, 1677, commented that

. . . The ill newes Mr. Cook writt me is fresh in my memorie, touching Mr. [Edward] Rawdons death. I was more affected with it then with that of his brother [John], there being so great a disparity in their qualifications. But I am most of all sorry for Sir George that his old age should be laden with such heavy losses in so small a time of his Lady and his two sons, both of them so hopeful. But if Mr. Arthur stand firm or recover into any settledness of health, I hope my Lord will beare those other crosses with the more ease.¹⁵

More also said that Arthur's tutor, Humphrey Mansell, had died at Montpellier in France in April, 1677. Mansell had been selected as tutor and chaplain to Lady Conway by More from among promising young fellows at Cambridge.¹⁶

Arthur was only 15 in 1677, but nothing more about his life can be gleaned from letters until his father's death in 1684 when he inherited the baronetcy (Figs. 1 and 2).

"Cock of the North"

On 6 February, 1685, King Charles II died, and King James II was proclaimed to herald a period when society in Great Britain, and especially in Ireland, was in turmoil. The Rawdons being Protestants (members of the Church of Ireland)¹⁷ later sided with the cause of Prince William of Orange.

Various correspondents¹⁸ of Sir Arthur Rawdon give vivid accounts of the restlessness and lawlessness of that period and of the campaign against the Roman Catholic King James II. For example, on 11 February 1684/5 Thomas Stanhope wrote, describing the

proclamation of the new king in Dublin, saying that the death of King Charles “will make a great alteration at Court in a little time.” While initially there was “great acclamation by everybody . . . [and] not the least disturbance or unquietness”, the mood soon changed. James and his supporters moved to replace Protestants in positions of authority with Roman Catholics. The Protestants became very agitated. On 27 June, 1685, Edmund Ellis wrote to Sir Arthur from Lisburn, saying:

We have a town and country full of soldiers, there being at least four or five thousand in the north . . . All things here as yet are quiet . . . yet are people under great apprehension and fears, the Irish grown very insolent, the fanatics tumultuous, the soldiers discontented partly for want of pay and partly for fear of Papist officers . . .¹⁹

Within a few anxious years, matters came to a climax. Rawdon himself raised a troop; in June, 1688, Stanhope wrote that

Yesterday your troop mustered under the command of one Captain Hamilton. Your lieutenant and cornet hath both lost. Terconnell [*sic*] is resolved to make none capable to serve the King but the Romish Irish, which frightens this country so that people are in a strange and distracted condition . . .²⁰

Sir Arthur, having supported the accession of William of Orange to the English throne, was regarded by Tyrconnell, James’ Lord Deputy in Ireland, as one of the chief agitators against the authority of James. Rawdon was therefore exempted from the pardon offered by Tyrconnell to the rebellious Protestants of “The Province of Ulster and Town of Sligo” in the proclamation of 7 March, 1688/9,²¹ and he gained the nick-name “Cock of the North” at this time “because of his boldness and great forwardness”²² in supporting William’s cause.

In order to subdue the northern Protestants, Tyrconnell despatched an army from Dublin, which reached Newry, County Down, on 11 March, 1688/9. It drove Rawdon and a small Protestant force, under the Earl of Mount Alexander, from Dromore in County Down. The Williamites fled in the face of the Jacobite troops, through Down and Antrim to Coleraine, which they reached on 15 March. They decided to stand at Coleraine, but the River Bann was crossed by the Jacobites, Coleraine was evacuated and the Protestant troops retreated to Londonderry. There, Rawdon was prominent among the Protestant commanders; he signed the Declaration of Union on 21 March, 1688/9.²³

One month later the siege of the city of Londonderry began, with the walls surrounded by Jacobite forces; the siege was broken after 105 days on 28 July, 1689, and the rout of the Jacobites began. Rawdon was not in Londonderry during the siege and may have gone to England; certainly he wrote from Congleton in Cheshire in March and April, 1690.

Despite the troubled times, his military activities and the general unrest, Sir Arthur Rawdon found time for family life. Before 1684 he married Helen Graham, and they had four children; only one son, John, and a daughter, Isabella, survived childhood.²⁴ He looked after the family estates, which he continued to improve. He also had a passion for gardening and botany, and he shared these interests with his wife, for several botanical books which they owned bear both their signatures²⁵ (Fig. 3). It may have been this interest in plants which led to Rawdon’s friendship with Sir Hans Sloane, although Sloane probably was well acquainted with the Rawdons; certain Conway and Rawdon family names reappear in the Sloane family.²⁶

Hans Sloane and Their Early Correspondence

Sloane was two years older than Arthur Rawdon. He was born on 16 April, 1660, at Killyleagh, County Down, on Strangford Lough. His father, Alexander, married Sarah

OBSERVATIONS
[TOPOGRAPHICAL,
MORAL, &
PHYSIOLOGICAL;
Made in a
JOURNEY
Through part of the
LOW-COUNTRIES,
Germany, Italy, and France:
WITH
A Catalogue of PLANTS not Native of
England, found Spontaneously growing
in those Parts, and their Virtues.
By JOHN RAY, Fellow of the
ROYAL SOCIETY.

When first I sail'd
A brief Account of *Francis Willughby Esq.*
his Voyage through a great part of Spain.

L O N D O N
Printed for J. M. at the Blue-Boards, in the Strand.

Fig. 3 Title-page of John Ray's *Journey Through part of the Low-countries* which originally belonged to Sir Arthur Rawdon and his wife Helen, now in the Public Library, Armagh (by courtesy of The Keeper, Public Library, Armagh).

Hicks and they had seven sons, of which only three survived to manhood; Hans was the youngest. Hans probably went to school in Killyleagh, but at the age of sixteen he suffered a "severe illness that of spitting of blood" which confined him to bed for three years. On his recovery, he went to London to study medicine; he spent four years there before going to Paris and he obtained his doctorate in medicine at the ancient French university of Orange on 28 July, 1683.

Sloane returned to London in 1684 and began earnestly to pursue his interest in natural history. He became friendly with many contemporary naturalists and engaged some, including the botanist John Ray, in correspondence. Sloane was elected a fellow of the Royal Society, and as he also practiced medicine, of the Royal College of Physicians. In a letter to John Ray written in January, 1686/7, Sloane mentioned for the first time, his plan to travel with the newly appointed governor, the Duke of Albemarle, to Jamaica, as the governor's personal physician.²⁶

The first extant letter between these two men makes it clear that they had been friends for some time; Sloane was 27 and Rawdon was 25 years old. Sloane wrote from London on 21 May, 1687:

Dear Sir

I hope by this you are very much advanced in your garden; yesterday I was at Chelsea [*sic*], where all things look very well. He had just now received a third or fourth parcel from his man James [Harlow] most of all which are either trees or arborescent plants, or bulbs, those being the most obvious. I do not believe he has got above one hundred in all . . .²⁷

The letter continues with a long description of the salvaging of items from a wrecked Spanish galleon off the Bahamas.²⁶ Sloane then noted that he hoped to set sail soon for the West Indies,

. . . from whence you shall hear from me, but I intend to give you another letter before I go. I hope you are all well. I am concerned about your late loss. I am sure there is no body in the world has a truer esteem and respect for you than myself, and you will oblige me in letting me hear from you when I am so remote. I believe we shall not stay long but, however, if long or short, every opportunity you shall hear from me. I do not forget birds, &c for you. You may direct your letter as formerly, and venture it to Mr. Wilkinson and if gone, I will order it to be sent with any other letters.

I am, dear Sir, your, &c.

Hans Sloane

My humble service to your family.²⁷

During his student days in London, Sloane had begun to take a deep interest in the garden of the Society of Apothecaries at Chelsea, where he studied botany. The curator, James Watts, employed James Harlow to go to Virginia to collect seeds and plants;²⁸ Rawdon was later to employ Harlow in a much more ambitious project. Indeed, it seems from the omission of Harlow's surname from this letter, that Rawdon already knew him; it is possible that Rawdon and Sloane went together to the Chelsea Physic Garden when Rawdon was in London on business. The letter also indicates that Rawdon was interested in other aspects of natural history, not just in botany and horticulture. The mention of birds probably indicates that he had a natural history cabinet; this idea is supported by the fact that over forty years later, the Rawdon family gave preserved animals to Trinity College, Dublin.²⁹

There is no reply extant, nor is there a second letter from Sloane, who left England on 12 September, 1687. It was to Jamaica that Rawdon wrote on 10 May, 1668, and it is obvious that Rawdon had received one letter from Sloane recounting details of the voyage — that letter cannot be traced. Rawdon wrote:

Dear Sir,

I have I beleeeve writ a dozen letter to yr Brother³⁰ & co[u]ld never hear one word of answer from him wch makes me beleeeve they have miscarried, I lately writ by a private hand & enclosed one to you in it. But since I have heard the Gentleman did not goe, so yt I fear yt letter has miscarried to[o] & I hope will come safe to yr hands, yrs from Jamaica wth an accompt of yr Voyage I had, & was overjoyed to hear you got so well there, & yt you agree so well wth the country, I am sure ours here is a miserable one, not a penny of mon[e]y to be got for any thing in the world, No mannor of Trade the Tenants not able to pay their rents, nor the Landlords to forbear their tenants, so yt most of the discourse is of Tenants dayly running away, & tradesmen [breaking ?], so yt I believe no country was ever so poor, nor is there any prospect of amendment, I have heard yt in Jamaica on the tops of the mountains tis usuall to have frost, I desire to be resolved whether tis so or no, & I must beg the favour of you by the first ship comes to Dublin if yu wo[u]ld send me some seeds, direct them to Mr. Robert King at his house in Skinnerrow In Dublin, & if you can by any convenience procure seeds out of New England, New Yor[k] &c: they will I beleeeve agree much better wth our climate than those of Jamaica, & I am informed they have several sorts of Cedars Pines &c: very usefull timber, I wish this may come safe to your hands & am

Dr Sr

Yr reall humble Servan[t]

Ar: Rawdon

My wife gives you her humble servis & is very well, I think yr mother has been ill but is better.³¹

Rawdon was aware of the albeit obvious fact that plants from the eastern parts of North America would have a better chance of growing in northern Ireland, but he clearly was determined to try to procure some Jamaican montane plants in the hope that species subject to frost in their natural habitats would survive in his garden. So he was a knowledgeable gardener, anxious to increase his collection of plants, but it seems he did not have a heated greenhouse at this period in which he could have grown tender tropical plants. Despite the "miserable" state of affairs in Ireland, Rawdon still found time to plan his gardening activities.

Sloane returned to England in May, 1689, one years after Rawdon wrote. He brought with him a large collection of herbarium specimens and some seeds. The next extant letter in this exchange was written by Rawdon on 31 March 1689/90 from Congleton in Cheshire.

Dr Sr,

I receaved yrs wth the enclosed from Mr Campbell, I heartily beg yr pardon for not waiting on you before I left London But I was in such a Hurry yt I had not time. We are very much strangers to news here & therefore will be much obliged to you if you will spare so much time as to impart wt may be Stirring, I shall be very much obliged to you if you will send me any seeds, wch if sent soon to Mrs Burton at the French Kings head in the old exchange to be sent me by Mrs. Butterfield, who is coming down they will come safe, or else given to my Cozen [sic] Dunbar who is coming down & is to be found at the Roe Duck in Haymarket. Here is abundance of wood used in this country for Lighting of fires & instead of Candles wch is found in mosses underground, it smells & burns like firr, tho I cannot say it has perfectly the grain of fir but seems to me were it not for the rosin to be, likest to sally. I am told also yt in digging they find fresh shoots wch as soon as they come to the air dye, but of this I am a little incredulous however I designe to see it

myself there is also found a kind of transparent substance much like Venustalk, except in the greenness I doubt not tis of that kind, I have some wch I wo[u]ld send you were it not for increasing the charge of the letter, I think this is something more transparent, but comes off[f] in fleakes just like it, I am

Dr. Sr.

Yr. most humble Servt

Ar: Rawdon

My wife gives yu her humble service.³²

Lady Rawdon's parents owned land in Congleton which explains why Sir Arthur wrote from that town.³³ Lady Rawdon was pregnant and as she later gave birth at Congleton, she must have been staying there to be with her mother during her confinement. Rawdon demonstrates in this letter his interest in both gardening and natural history. Sloane replied to Rawdon's letter on 29 April:

Dear Sir,

I received yours, and some days ago gave a packet of seeds to be sent or carried you by Mr. Dunbar in which are at least 40 several seeds, and if you please to sow the dust as well as the larger seeds, there will certainly rise a great many of them, and if you please to bestow large watering, I believe it will be so much the better, for that in the countries where they grow, a fortnight's rain together, so that the whole face of the earth is covered (and consequently the seeds) with water, never misses to bring a plentiful spring. When you are settled any where about gardening you shall not want all the seeds I can scrape together for you, and them I design you some more I reserve for you till that time. I am very glad to hear the good news of your lady's being brought to bed of a boy; I wish you would confirm it me by a line from yourself, and how she does, and whether her tetter be quite vanished, she used so much to complain of here in town, and for which no physic could be given during her ladyship's being with child. You'll please to give my humble service to all the Ladies with you, and commend me freely if I may serve you, who am

Yours, &c.

Hans Sloane³⁴

Sloane combined his botanical and medical inquisitiveness in this letter, but Rawdon was impatient to get news of the seeds he had asked Sloane to send. On the next day, 30 April, before receiving Sloane's letter, Rawdon wrote again from Congleton:

Dr. Dr.,

I give you this trouble partly on your brothers accompt to whome I have written severall letters on buisiness of concern but can have no answer from him, so I shall beg the favor of you to speake to him. I thank God my wife & her Son are both very well, I hope you have Sent me my Seeds By George Dunbar If not & yt you intend me any I will order a carrier to call on you for them I am

Dr. Sr.

Yr most humble Servt

Ar: Rawdon³⁵

In his next letter, dated 5 June, 1690, Sloane acknowledged the receipt of a letter from Rawdon (probably the one above dated 30 April), and then related the problems which faced him in attempting to fulfil Rawdon's insistent requests for plants.

Dear Sir

On Tuesday last the carrier came to town with your letter and Mr. Sherard having been forced to go to Oxford, I went with his brother to Chelsey, and saw all the plants in Mr. Sherard's list in the pots and box, from whence they were brought yesterday

morning, put on the waggon very carefully in order to come to you, which I hope and do not question but they may. The carrier was at first afraid he could not, and afterwards unwilling to carry them for fear they should come to danger, but we on consideration of the hands your money was in, and of the hazard the plants would be in any place about town, persuaded him to take as many as he could on any other goods, which he did, and give one or two to another carrier at about 1d. per pound. The carrier shewed, I must say, at last when he understood it, good will enough to the matter, and I do not question but you will have them safe. The *cedrus libani*³⁶ and cyclamen you desired, could not be sent; the one was too big, and the other could not be found, but that may come with Mr. Sherard. We have no news here, but what must come from your parts; the King is yesterday morning gone for Chester, and all things are here quiet and easy. Chelsey garden nor none here improves, and philosophy seems to be asleep. The news from Yorkshire bring the figure of the great church in the clouds at sun rising. Mr. Ray has published his “Synopsis Methodica Stirpium Britannicarum”,³⁷ and Dr. Plukenet is hard at work on his book of plants.³⁸ I spoke to my brother about your business, who complains of my Lord Macclesfield’s being hard to have to do withall, and difficulties in it; but I suppose he had ere this done it, and sent it you. I hope your lady and the rest with you are well, of which I shall be extremely glad to hear. I wish you all health and prosperity and remain, dear Sir

Yours, &c.

Hans Sloane.³⁹

William of Orange landed at Carrickfergus on 14 June, 1690, nine days after Sloane wrote this letter; it is not known if Rawdon accompanied the king, but he returned to Ireland about this time. On 22 June there was a skirmish between Jacobite troops and the supporters of William “about Moyragh pass”.⁴⁰ After this, Captain Thomas Bellingham, one of William’s officers, waited upon Sir Arthur at Moira. On 23 June, Bellingham also “stayd some time with Sr Ar Rawden”.⁴⁰ Nine days later on 1 July, the Battle of the Boyne took place — William was victorious, although for a further year the Irish Jacobites fought on until defeated at the Battle of Aughrim. Despite the wars, Rawdon calmly continued to collect plants for his garden; he must have been supremely confident about the outcome of the continuing conflict.

Sir Arthur and William Sherard

It is clear from Sloane’s letter that it had already been arranged for William Sherard to come to Ireland. Sherard, as well as being acquainted with Sloane, knew other leading English botanists and horticulturists, including Jacob Bobart at Oxford and John Ray. Sherard had studied law at St. John’s College, Cambridge, and after graduating travelled in Europe and studied botany under such men as Tournefort in Paris and Hermann in Leiden.⁴¹ After five years in Europe he returned to England, in 1689, and tried to get a position in botany. But, in May, 1690, he wrote to his friend Dr. Richard Richardson, saying that “Dr. Plukenet has the promise of the Place at the King’s Garden. If so, I believe I shall go into Ireland with Sir Arthur Rawdon within this two month.”⁴²

It is generally stated that Sherard came to Ireland as tutor to Sir Arthur’s son. Sir Arthur had two sons, Edward and John — John is probably the new-born child mentioned by Sloane and Rawdon in their letters. Edward died while young and his birth-date is unknown. Unless he was born several years previously (his parents married c. 1684), it is unlikely that Sherard was engaged as his tutor. Thus the real purpose of his sojourn is unknown; nowhere does Sherard himself give the reasons for the three and a half year visit. In later years he

regretted the time spent with Rawdon; he wrote to Sir Hans Sloane on 7 March 1714/5 saying that, in Ireland “I lost three years and a half of my life . . . which would have been much better spent elsewhere.”⁴³ It is possible that Sherard’s purpose was to be companion to Sir Arthur Rawdon, and his botanical advisor in the event of success in Rawdon’s plans for his garden at Moira. From Sloane’s letter it is possible to conclude that Sherard was already advising Rawdon on suitable plants, since Sloane said he had visited Chelsea Physic Garden to inspect plants, listed by Sherard, before they were dispatched to Moira.

Sherard arrived in Ireland sometime between June and November, 1690, for on 19 November he wrote from “Moyre near Lisburne” to another friend, William Charleton (*olim* Courten) “at his Chambers in ye Middle Temple, London”.

Sr

I had laid by all thoughts of Hampton-Court business, when I first resolv’d for Ireland, & shou’d not now have renew’d them but yt Dr Herman & Dr Turnefort [*sic*] (who gives you his service) by letters I lately recd from them, not only encourage, but press me to look after it. The kings, (& I suppose my Ld Portlands) going for Holland, may give Mr Des Marees an occasion for solliciting in person, what he cou’d not so well obtain by letter. If any thing shou’d chance to be done in it, I shou’d be vex’t to loose it by my absence & therefore must desire ye favour of some body to appear for me, if his majesty or Ld Portland shou’d enquire after me. I know nobody fitter than Dr Hutton who is always at court & was pleas’d to promise me his assistance in this affairr. When you see him be pleas’d to give him my service & desire it of him, wch shall be gratefully acknowledg’d by me. I am heartily sorry to hear of Dr. Moulin’s death & fear James Harlow may come to some damage by it, ye Dr having his money; I wonder we have not heard from him. I design next spring early (if I tarry here) to begin my northern circuit, yt I may be ready for ye west & southern parts by yt time they are in ye Possession. If I find any thing worthy of yr collection it will make my jorney ye more pleasant & encourage me to proceed; the hopes I shall, makes me ye freer in giving you this trouble, wch I know not how to excuse, & therefore will not go about it, but subscribe myself

Sr Yr Assured friend & Humble Servt

W. Sherard

Sr Arthur Rawdon gives you his humble service.⁴⁴

This letter from Sherard, apart from giving information on his own affairs, is important in trying to gauge the extent of Rawdon’s horticultural activities and also in attempting to reconstruct some of the details of the plant hunting expedition he sent to Jamaica.

Rawdon’s Jamaican expedition

In Sherard’s letter, two people are mentioned, James Harlow and “Dr. Moulin”; the latter was Dr. Alan Mullen, who was born in the north of Ireland and studied medicine at Trinity College, Dublin, from which college he graduated with the degrees of bachelor (1679) and doctor (1684) of medicine. He was a member of the short-lived Dublin Philosophical Society, and is best remembered for his work on the anatomy of the eye, and as author of an anatomical account of the elephant which he produced after dissecting one which had been burnt to death in Dublin. In 1686 as the result of “an indelicate love affair” Mullen left Ireland for London.⁴⁵ There he met the Earl of Inchiquin and on Friday, 27 December, 1689⁴⁶ they embarked for the West Indies. Mullen hoped to improve his fortune by discovering minerals in Jamaica, but he never reached Jamaica as he died “from the effects of intoxication” after landing in Barbados.

Sherard's remark about Mullen having James Harlow's money suggests that Harlow was with Mullen and Lord Inchiquin, and thus that Harlow left England in December, 1689, before Sherard went to Ireland.

James Harlow is an obscure character. Nothing is known of his early life, and he is first noted as a collector in Virginia whence he had been sent by James Watt, curator of the Chelsea Physic Garden.²⁸ As suggested, it may have been at Chelsea that Rawdon and Harlow met. Sometime about 1689, Rawdon commissioned Harlow to go to Jamaica to collect plants for him; as Hans Sloane returned from Jamaica in May, 1689, and said that Harlow was dispatched after Rawdon had seen Sloane's collection of Jamaican plants, Rawdon must have commissioned Harlow sometime between May and December, 1689.

From the next extant letter between Sloane and Rawdon, it appears that another botanist may also have been with these three. Sloane wrote to Rawdon on 27 December, 1690:

Dear Sir

I received your, and thank you very much for it, being extremely glad to hear of your's and your family's welfare. Mr. Charlton was a subscriber, and had a right to what the Quaker brought from Barbadoes, and so consequently had his seeds, and has put by for you some of each sort which be sent to you at the first opportunity, and I question not but that you may raise very many of them, they seeming to be very fresh. I met Dr. Moulin's brother last night he being newly come to town; he says, he paid James the two bills for 60L. and that he has gathered together near 500 plants, designing over by the next fleet, which I believe will not sail from thence till this gone now hence shall arrive there, so that 'tis not likely he will be here this 8 months, when I believe you may expect him. We have no news here as to philosophic matters. Dr. Herman's Catalogue is now printed, methodically digested, and people begin to find fault with all methods hitherto, and to range them only by the flower, but how long this may last I cannot tell. I have nothing more to say, but to beg the favour of you to give my most humble service to your Lady, Mr. Sherard, &c. and to command me in any thing I may serve you in here, being

Yours, &c

Hans Sloane.⁴⁷

The Quaker mentioned in this (and a subsequent) letter was James Reed about whom little is known, except that he collected in the West Indies about 1690. Among volumes in Sloane's herbarium are several containing specimens attributed to Reed.⁴⁸ One, of "Plants gathered in Barbadoes by James Reed, bought by Mr. Courten", was annotated by Sloane who noted that the plants had come from "Barbados by James Reid the quaker sent thither on King W[illia]ms account 1692". Charleton (i.e., Courten) had instructed Reed how to collect specimens, but these instructions about "The things I desire you to get me", dated September 1689, relate mainly to zoological specimens. A list of 93 West Indian plants, with descriptive notes, written by Reed is extant and is headed "The names of plants which do groue in barbadoes gared [gathered] by me James Reed in the early 1690 I did land ther the 11 of May".⁴⁸

Reed brought seed to London, some of which went to William Charleton, some to the Royal garden at Hampton Court⁴⁹ and some to Rawdon and Sherard in Moira, for on 6 June 1691, Sherard wrote from Moira to Dr. Richardson that:

"Yours came hither in 12 days: and had been answered last post, had I been at home to have received it. I was viewing a mountain about 15 miles distant,⁵⁰ which did not prove according to expectation, being covered over with Heath and Moss; . . . I set

out next Thursday for the mountains near Belfast, and will continue along the shore to Carlingford. Tom Harrison is not yet come, but I hope will by my return, that I may have his company to the county of Derry and the Western shore. I am glad you have received your Seeds from Dr. Herman: he sent me a parcel and book the same time (as he writes), which I have not yet heard of. I hope Tom Harrison will bring them (though they will come late) with my dried Plants, which my Brother has received . . . I have raised about sixty Barbados Plants from Seed sent by Mr. Charleton, brought over by James Read the Quaker, of which I will save you some patterns . . . I fear Ireland will not be able to make you suitable returns, especially this Northern province. When I can with safety visit Connaught and the Western parts, when *Arbutus Teucrium Cisti flora*⁵¹ &c. grows, I hope to give you a better account. I am your assured friend,

W. Sherard''⁵²

Since Sherard had been in Ireland for almost a year when he wrote to Richardson, it is most likely that the Barbados plants were raised at Moira. The seeds may have been among the material "brought for K[ing] William from the Madereas Barbadoes etc. in Octob. 1690".⁴⁸ The statements by Sloane, Sherard and others about seeds "brought" by Reed suggest that Reed was only in Barbados for a few months between May and about August 1690, and that he then returned to England. However, in a letter written in 1692 (see below), Rawdon said he was sorry "to hear the Quaker is lost from the West Indies."⁵³

Shortly after writing to Richardson, Sherard did set out on the journey he planned. From published records, it is known that he collected specimens in the Mourne Mountains, north of Carlingford Lough which included *Agrostis stolonifera* and *Asplenium adiantum-nigrum*: he also found *Vicia sylvatica* at Rostrevor.⁵⁴ In his letter to Richardson, Sherard noted that he had found "three or four *Musci Adianti Capitulis* . . . which are not in Mr. Ray's *Synopsis* . . . [and] by a lough-side, in a very wet rotten bog, I met with *Helleborine fl. albo.*"⁵⁵ The journey to western and northern counties does not appear to have taken place, probably due to the continuing warfare, which is described by Rawdon in his next letter.

On 24 June 1691, Rawdon wrote to Sloane:

Dr Dr

I lately received a letter from you of an old date by one Lambert, a divine who by chance I met on the road hard by, I am sorry our country does not afford news of the same kind to retaliate you with, but now nothing can be done here for the noise of war, which does not indeed trouble these parts only yet the people run up so fast to the camp yet we can not get workmen for any service. My lady Graham has given me an account how kind you have been to them all there in your advice for which I return you my hearty thanks & must be your debtor; & must put another trouble on you, which is yet I have taken a gardener at London one Thomas Harrison, who Mr Sherard has sent on to come over & I have sent to bring me over some things, & I do desire of you yet you would recommend him to some of the merchants to draw a bill on me for what he shall have occasion for his journey & those things which I suppose will not be above 20.-. I must also desire you to speak to your brother to whom I have several times written about an intended match between Mr Annesley & my youngest sister, he has perused the Deeds & if he has no mind to explain himself in the matter to give me a hint by you of what he designs, I am

Dr Doctor

Yr Most humble servant

Ar. Rawdon⁵⁶

Harrison seems to have arrived in Ireland shortly after Rawdon wrote. A statement in the second edition of John Ray's *Synopsis* has been interpreted as a reference to him;⁵⁷ Ray noted that Harrison "relates that the two foregoing Plants [*Abies alba*, *Picea abies*] were found in the County of Kerry (where the *Arbutus* grows) by a person of good integrity and Skill in the Knowledge of Plants."⁵⁸

Nearly nine months elapsed before Rawdon again wrote to Sloane; the letter is dated 30 March 1692.

Dr Sr

I receavd yours about Mrs Bayly & my wife send to her this day. I wo[u]ld be very glad to know in wt your desire or think we can be most serviceable to her, wch will be a great obligation to me, & now Sr I can not blame you for taxing me wth unkindness in not writing to you before, but Indeed I have had a most severe winter, having for these three last months kept my bed almost all together, occasioned by a return of the gout & pleurisie, for I never have one without the other & never have wanted both three or four times a year since I left Derry in [16]88

I hear Captn Hugh Maxwell is courting your sister,

I am sorry to hear the quaker is lost from the West Indies, & I much wonder wt is become of James. I fear he has a designe to cheat me for I can not hear the least thing from him. We had lately a report that your brother designed over here to look after my Lord Lisburns Concernes, you can expect no news from this countrey, Mr. Sherard has this year found many new funguses, all our family gives you their humble services, I am Dr Sr

Your reall humble servant

Ar: Rawdon.

My wife has made me open my letter again to tell you yt she is much trobled yt you sho[u]ld write word yt you were afraid the cause of my silence was yt you had disoblged with her mother or her, she hopes you have a better opinion of them both.⁵⁹

Sherard was continuing botanical studies about Moira. His fungi collection was obviously remarkable, for many are listed in Ray's *Synopsis*,⁶⁰ although few of those listed can not be identified accurately; specimens of some survive. These records include a *Lycoperdon* species from "Sir Arthur Rawdon's Orchard in the Count of Down at Moyra" — probably the orchard planted by Sir George Rawdon.

Jamaican success

Rawdon's distress at the lack of news from James Harlow in Jamaica was relieved in late April 1692, when Harlow reached Carrickfergus, a small port on Belfast Lough, with a superb cargo of plants. Both Rawdon and Sherard wrote to Sloane about the collector's arrival; Sherard's letter was much more detailed than Rawdon's which was written on 4 May 1692 (Fig. 4). Rawdon told Sloane

Dr. Dr.

On Monday last I receavd yrs, I wish it may ever lye in my power to serve you or any belongs to you, My Lady Graham is dead. James is safely landed here, he tells me he sent over a great parcell of seeds wch I suppose Mr Sherard writes to you this post about it, & the disposing of some of them, the ship you mention my Lady Inchiqueen [*sic*] was in is Captn Hensons of Kildare, I thank God I have my health pretty well now I am

Sr

Yr reall humble
servt

Ar: Rawdon.⁶¹

14 227
I am with Breccanting it, though it may be
in my power to send you or any other of his
your. Mr. Lady Graham if I can
and if safely landed here, he tells me
enters over a great parcel of seeds which I
think Mr. Harlow writes to you the rest
about it, & the disposing of some of them,
the three you mention my name in he gives my
in it Capt. to Henry of Kiteau, thank
to have my health pretty well now than

W^m Rawdon

4 May 1692

Fig. 4 Sir Arthur Rawdon's letter, dated 4 May, 1692, to Sir Hans Sloane announcing the arrival of James Harlow and the Jamaican plants (by courtesy of the British Library, London).

The death of Lady Graham, Rawdon's mother-in-law, may explain the brevity of this letter. Fortunately, on the previous day, 3 May, Sherard wrote a more detailed letter about Harlow's plants:

Dear Sr

James Harlow is at last return'd; he came last week to Carrickfergus, wth 20 cases of shrubbs & trees, each containing about 50, well condition'd, & considering ye advantage of ye season they come at, I hope they will continue so. he has brought little else, not above 6 shells & but one new, to ye little knowledge I have of them. his dry'd plants are pretty well preserv'd, & he has miss'd few trees or shrubbs in ye Iland: his collection of ferns very large, but as for herbaceous things & grasses very few. seeds he has not above 100, (of wch I will send next week for London) having sent his whole collection last fleet, wch we have not yet heard of, & must desire ye favr of you to enquire after. he sent a box (a candle box about 2 foot long) by Mr Morris, whose shallop sprung a leak (I think) so yt he was forc'd to return to Jamaica. Mr Morris deliver'd ye box mark'd S.A.R. [Sir Arthur Rawdon] wth a letter directed to Sr Arthur Rawdon to some Capt. yt proceeded on ye voyage; what his name is James Harlow knows not, nor ye name of ye vessel. if you can anywayes find it out you will much oblige Sr Arthur & severall others, to whom Sr Arthur desires you wou'd communicate what may be conveniently spar'd, viz to Dr Herman, Dr Uvedale, Mr. Bobart & Mr London & to send ye rest for Ireland. I have writt to my Brother to make what enquiry he can. perhapps they may be left at ye Custome house, when ye vessel was clear'd, or some Capt. at charge inform you who Mr Morris sent them by. I have collection of ye dry'd specimens by me trees & ferns wch shall be at yr service. I'll take what care I can they come not into Dr P. [lukenet] hands (especially ye ferns) least he prejudice you in yr noble design, wch I hope goes well on. ye Dr writes he is about a 3d voll. as large as ye other 2, to furnish wch he wants no plants, only ornament 'gratia', desires some of my Portugall plants; I'me sorry to see some in his last, wch was not of my communicating. I shou'd be glad to know where he finds materialls for this 3 voll. as also to know how Botany goes forward in England & abroad, where in you will much oblige.

Sr

Yr

Most humble servt

W. Sherard

I have one fern gather'd in the Maderas I think distinct from any I have seen, 'tis round leav'd as Assarn wth seed round ye edge, I'll send you a specimen of it. I drank yr health lately wth Capt James Bayley.⁶²

Harlow's success was outstanding, for he brought to Moira about a thousand living plants from a tropical island, which, by later accounts, flourished in their new home, at least for a few years. Duplicates were distributed to other European gardens. It is clear that Harlow had concentrated on collecting living specimens of trees, shrubs and ferns, and herbarium specimens, and not on collecting seeds, although the bulk of Harlow's seeds were despatched from Jamaica and lost. Rawdon was as generous with his plants as his contemporaries, and Sloane was requested to give surplus seeds (if they were found) to Herman in Leiden, Uvedale, Bobart in Oxford and others.

Little is known about the methods adopted for the cultivation at Moira of the Jamaican plants, or those raised earlier from Reed's Barbados seeds. There was a conservatory at Moira as early as 1690, for on 2 June that year Captain Bellingham "walk'd in ye afternoon to Moyragh, saw Sr Arthur Rawden's house, and walk'd . . . to ye conservatory."⁶³ Despite the looting and destruction that had occurred in the countryside, Bellingham

observed that the "house and much of ye goods are well preserv'd."⁶³ The conservatory was one of the earliest constructed in Ireland,⁶⁴ and was probably the building used to house the tropical plants. The actual success rate achieved by Rawdon cannot be estimated as there are no detailed contemporary reports of the health of the plants. It is possible that although most of them arrived in Ireland in good condition, the death rate was high. However, the ultimate fate of the plants does not detract in any way from Harlow's achievement in transporting alive to Ireland one thousand tropical plants, at a period when the knowledge of the techniques of plant transportation were poor. (Not until the mid-nineteenth century, when Nathaniel Ward "invented" the glazed carrying case (the "Wardian Case") was real progress made on long distance transport of plants.⁶⁵ The main problem was the salt spray, which, once it seeped into the soil led to the death of plants). Harlow seems to have had better luck than most and the collection endowed Moira with one of the most remarkable gardens in Europe at this time. Not only had Sir Arthur Rawdon many West Indian plants, but he also had plants raised from seeds obtained from his friends and colleagues. It is sad that he was only to enjoy these botanical riches for three more years.

Five weeks after the arrival of the Harlow collection, Sherard paid his first visit to Dublin, from where he wrote on 11 June to Sloane:

Dear Sr

Yrs I rec'd & heartily thank you for ye trouble you took abt ye box of seeds. Sr. Arthur recd ye letter wch was sent wth them at Drogheda on his way hither; I hop'd to have found yt such a Capt on ye backside, as usuall, but not a word. it ought to have been sent before Xmas last, but was mark'd at ye Posthouse May 2d as I remember. I question not but ye Box is in ye hands of him yt sent it, but how to direct you to find him I know not. I had not time before I came up to sort ye specimens James brought over, but will fall on it at my return; ye duplicates shall be sent to you by Mr Young of Belfast, who will be at London in Augst. what are for yr service be pleas'd to keep & ye rest shall be order'd to Mr Bobart, or some other freind. I never design'd any for Dr Plukenet knowing it might prejudice yr design, wch I'me glad to hear goes on so well, besides I shou'd affront him shou'd I make him such a present as he has sent me by Mr Harrison (& a better I don't think my self oblig'd to) of abt 12 broken leaves. I writt since to my Brother particularly to order him to let Mr. Charleton have what seeds he pleases to choose & will be sure to send him some specimens, wth a request not to communicate them. I'me sorry to hear Dr. Herman is grown sickly I have writt to him this post & shall send him some seeds next week by Mr. Cornwall of Lisburne, who will take ye trouble of a small box of seeds, mosses &c wth him wherein is ye round leav'd fern I mention'd in my last,⁶² directed to you. he will return in July & will take care of ye specimens or any thing else you have to send hither, as soon as I come into ye North I'll write to Mr. Ferguson & give you his answer; I want ye 2d vol. of Ray my self, & will be glad to pay him here for it. I heard of Mr. Dale's design upon ye Mat. Medica, & yt Mr Ray was upon insects, wch after his Quadrupeds I hope he will fall on. Pray if you know any of ye Athenian Society let me have some acct of ym in yr next; my humble service to all ye clubb particularly to Mr Charleton, Dr Robinson & Mr Doody. I am

Yr Obliged friend &
Humble Servt
W Sherard⁶⁶

This is the last extant letter written by Sherard from Ireland, and there are no other extant letters between Rawdon and Sloane, so that information on the last few years of Rawdon's life is lacking.

Sherard promised to let Sloane have duplicates from Harlow's herbarium collections; these did reach Sloane for he acknowledged the co-operation of Rawdon and Sherard in his catalogue of Jamaican Plants. Bobart also was allowed access to the herbarium specimens.

Sherard paid at least one more visit to Dublin; in 1693 he annotated an *hortus siccus* for Thomas Molyneux.⁶⁷ Sherard left Ireland early in 1694 — perhaps late in 1693. At the beginning of 1694 he gave John Ray a list of continental plants and in June took the degree of D.C.L. in Cambridge; he did not return to Ireland. At the time, Rawdon owed Sherard some money and many years later in 1715 Sherard complained to Sloane that “. . . before I left Ireland, [Rawdon] gave me his Bond for 180 pds, of wch to this day I have not recd any thing, either principal or interest. I know how great interest you have in yt family & desire yr freindship & assistance in procuring me my just right, since it was on yr recommendations, yt I went to him; indeed his own letters to me were very pressing to come over, & his promises inviting, & am confident cou'd he have any ways rais'd mony woud have paid me . . .”^{67a} Rawdon could not pay. Sherard wrote five times to Rawdon explaining that he needed £90 “for taking my Drs degree but he never vouchsafed me an answer . . .”

Rawdon died on his birthday, 17 October 1695; it is said he died of an illness contracted during the Williamite campaign in 1689-1690, but it is more probable that he had a weak constitution since childhood and died from “gout and pleurisie” from which he suffered after about 1688. He was succeeded in his title and estates by his son John. It is likely that Sir Arthur's death marked the beginning of the decline in the plant collections at Moira, although there is evidence of a continuing interest in gardening, albeit not of such an exotic and difficult nature, within his family.

During the short period between 1684 and 1695, Sir Arthur Rawdon assembled at Moira one of the most remarkable collections of living plants ever held in Ireland — it is unlikely that any other private individual in Ireland has maintained as large a collection of tropical plants, apart perhaps from specialist orchid growers in the latter part of the nineteenth century. Rawdon's achievement is all the more outstanding because it was brought to fruition at a time when the techniques available for plant transportation were primitive, when the chances of successfully keeping alive tropical plants in prototype glasshouses were slim, and when the political and social conditions in Ireland were in turmoil. That he managed to overcome all these problems, places Rawdon among the most important innovators in horticulture in Ireland. Unfortunately the nature of his plant collection, based on tropical plants, and the pioneering position he occupied, meant that the collection did not remain intact for long, but Rawdon was able to distribute living plants and herbarium specimens to enrich the great collections of England and Europe — by his generosity he assured for himself a significant place in the history of botany.

The extent of Rawdon's assistance to Sloane can be partially assessed by examining Sloane's *Catalogus plantarum quae in insula Jamaica sponte proveniunt*. In this work, Sloane occasionally noted specimens which were growing in Rawdon's garden from Madeira and Jamaica and acknowledged Sherard's assistance in obtaining specimens or information: one example is a fern “*Hemionitis asari folio. Hanc elegantissimam hermionitidis speciem ex insula Madera, ab Hortulano Arthuri Rawdon Bar. delatam mihi dedit Botanicus eximius Dominus Guilielmus Sherard.*”⁶⁸ The same applies to Jacob Bobart's *Plantarum historiae . . .*,⁶⁹ which contains acknowledgements to Sherard, some of which may be read as indicating materials acquired from Rawdon's collection.

After Sir Arthur's death

In concluding this panegyric, it is interesting to note some of the correspondence of later members of the Rawdon family. Some of the letters indicate the fate of the herbarium

specimens, which were lent to Sloane, through Sherard — it is certain that these were not kept by Sloane but returned to Rawdon shortly after he had studied them.

On 26 September 1703, Brilliana Rawdon, Sir Arthur's sister, wrote from Dublin to Sir Hans Sloane:

Sr

“I receiv'd ye feveour of yrs & my Sister & I both gives yu hearty thanks for the trouble yu have given yr self about those plants she beg'd yr assistance in. My sister has sent to Mr Methwins servants who have no order to let her have any but I sopose they have a generall order to sell them. their flowers are all sent to portengall [Portugal] they held them so dear no body hear wou'd buy them, there renuncules [*Ranunculus asiaticus*.] above ten shillings a roote & run the hazard of what they wou'd prove for they had of all sorts. they have not yet sett a rate one their greens but have promis'd my sister some wch she has pitch'd on one a very sickly Indian jessemy wch I fear will go off but she has gott a little green house this winter. She lost severall plants last year wch she rais'd of seed for want of it . . .

Your very humble

Servant

Brilliana Rawdon

My sister Rawdon never had an oportunity but in my last in wch I forgot it to give yu thanks for a micrascope yu were so kind as to send her severall years ago.”⁷⁰

The very belated thanks show that Sir Arthur's interest in plants and in natural history generally was shared by other members of his family. Brilliana Rawdon indicates in this letter that her sister had no greenhouse in 1702; it is strange that she did not avail of the use of the greenhouse at Moira, although this sister may have lived in Dublin.

In July 1711, Sir John Rawdon, Arthur's son contacted Sir Hans Sloane; only the first part of the letter survives, but a second letter from Rawdon to Sloane, dated 30 October 1711, provides valuable information on the fate of Sir Arthur's Jamaican collections. John Rawdon wrote

Sr

I have had the favour of a letter from yu to acknowledge, & therein the testimony of yr Civillitys, & kindness in a very oblieging manner, wch no one will resent more, tho they may never better deserve it. I should be very glad to hitt on any expedient that may settle a correspondence on such a foot as may afford matter enough to keep it alive, & not be altogether empty, as for ye plants yu take notice of, I find that, whether the climate is not so proper, as allowing them (after a great deal of trouble) only to live, without any degree of flourishing or perfection, or by the carelesness of servants, & death of Mr Harlow, not long since, whom my fa[ther] Employed into Jamaica, I say, I find that most of those foreigne southern plants are dwindle[d] to nothing, I am sorry I cant give yu a better account of them, but of ye Books I can, all wch I have together in good order, I beleeeve my occations will carry me into England next Summer when I shall pay my respects to yu in person, but in the mean time I should be very much obligedged to yu, for any favour yr leisure may allow yu to send me, as being yr real fraind &

humble servt

Jon Rawdon⁷¹

By this letter John Rawdon indicated that a few of the Jamaican plants were still alive in 1711, but in poor condition at Moira. He also provided an approximate date for Harlow's death. Harlow probably remained at Moira for nearly twenty years after he returned from Jamaica. Sir Arthur had employed Thomas Harrison as gardener in 1691, but it may be that

Harrison left or was not in charge of the glasshouses. Sir John seems to have been anxious to maintain his family's friendship with Sloane for in the earlier (fragmentary) letter he had written:

Sr

Being sensible of ye intimate friendship that was establisht between yu & my father, in respect to his memory I can desire no less then ye continuence of it to his son. who lyes under great obligations to you on accompt of great kindnesses my family has receivd from yu on severall occations wch I shall always be ready to Acknowledge. I hope yu will de me ye justice to beleieve yt I should be very ready to cultivate a good correspondence wth yu, & yt on many respects, being wth equall passion and truely

. . . ⁷²

This respectful letter elicited from Sloane the enquiry about the living Jamaican plants and the Harlow herbarium specimens, which Sir John responded to.

Ten years later, about 1722, in a letter to Sir John, his wife, Dorothy, wrote from Dublin on 6 July:

I shall send my Lady her Red Ball next week by Mr. Prior & in the Box I shall send you Mr Kellys Speech. I send you some seed of the Mallow Leaved Geranium that you brought me in slips considering tis easier convey'd in a letter than the roots. I shall have more of itt ripe in a few days.

We were entertaind a few days agoe att the Colledg & saw all the Mathematicall Apartment I cou'd have spent a month amongst the Gim-cracks with pleasure. Mr Maple desir'd me to tell you that the Ground for the Phisick Garden is not yet ready & he has noe desire to run the Hazard of Looseing the Plants you offer him by two removes they shew'd me the spot of Ground laid out for that purpose which is not att all in order as yett, when tis prepar'd they will thankfully receive your contribusion. they have gott 20 sorts of Alos from Holland, some of them the finest I ever saw & when they increase I beleive you may be sure of them . . .

Dear Sr

Yours most humbl servt

Do. Rawdon. ⁷³

The exchange of plants indicated in this letter between the Physic Garden at Trinity College, Dublin, and Moira, is significant for it suggests that Rawdon still had a substantial and diverse collection. Sir John's keenness to get some aloes — it is known that at this time the college garden had at least twelve African species⁷⁴ — also shows that he was interested in unusual rare plants. There is no evidence that there was a glasshouse at Trinity College Physic Garden at this period, so these plants must have been grown out-of-doors, and perhaps given some protection in winter by movable cloches. Whether the exchange took place is not recorded.

At this time, the herbarium collection which Harlow had made in Jamaica, and specimens collected around Moira by Rawdon and Shérard, were still in the family's possession. It was not until many years after Sir Arthur's grandson, the second Sir John Rawdon, had succeeded to the baronetcy, that Sloane made any other attempt to trace the specimens and obtain them for his collection.

In September 1735, Thomas Prior wrote to Sloane:

Sr.

When I was in London about 3 or 4 year ago, under yr happy care, yu desir'd me to enquire, whether yu could be favour'd by the family of Sir John Rawdon, with the Hortus Siccus, or plants, wch Mr Harlow brought from Jamaica for Sir Arthur Rawdon;

I have accordingly applied to Sir John Rawdon, who is a youth between 15 and 16 years old, and of great hopes — and tho he has a great tast himself for gardining, and knows most of our plants, yet out of regard to the friendship wch has subsisted between yu and his family, he is very willing to oblige yu with all the plants he has of that kind, to enrich yr collection. At his desire I have putt all he had left into two books, in one of wch the names are affixed to the Plants; in the other there are a great number of plants between the leaves, but without names, and wch yu are best qualifiyd to supply — I have tyed and seal'd them up, and directed them to yu at yr house in Bloomsbury Square and put them on board the Dublin Merchant, John Thomas, Master, bound to London. I beleive the ship has left this harbour, so that yu may expect her in a few days in London — you had better give directions to some body to inquire when the Master arrives, and get the books from him.

You were so kind as to make a present of the first part of yr Natural History of Jamaica to the late Lady Rawdon, wch Sir John now has — and he wd be obliged to yu if yu could let him know how or where he may get the second part—

When the books come to yr hands, be pleased to let me know yr receipt of them, and direct to me at the Graecian Coffee house Dublin—

I am with alll respect and
gratitude yr most humble servt

Tho: Prior

Sir John and his Aunt

Mrs Rawdon present yu
their respects⁷⁵

Sloane received the specimens which are now included in his herbarium in the British Museum (Natural History), London. Prior sent Sloane two volumes but there are three volumes containing plants from Rawdon in Sloane's herbarium. The one, described by Prior as having "names affixed to the Plants" is that labelled by Sloane as "Severall plants gathered in the Oxford Garden by Mr. Jacob Bobart and sent to Sr Arthur Rawdon whose Grandson Sr John Raudon [*sic*] sent them to me".⁷⁶ The labels are in Bobart's handwriting; it is likely that these were the specimens sent from Moira by Sherard to Sloane, and thence to Bobart, as suggested in Sherard's letter dated 11 June 1692. Prior also sent a book with "a great number of plants between the leaves but without names". This book is probably the volume inscribed "Severall Plants gathered in Ireland by Sr Arthur Rawdon and Dr Sherard and sent to me by Sr John Raudon his grandson".⁷⁷ Sloane would have removed the loose specimens and had them mounted in another volume; which will be the third volume in the Sloane herbarium labelled "Plants gathered by Mr James Harlow a gardiner sent to Jamaica by Sr Arthur Raudon and given to me by his Grandson Sr John Raudon".⁷⁸ This volume also contains unrelated material collected by Millar. The collection attributed to Rawdon and Sherard includes both native Irish plants and cultivated plants probably from Rawdon's garden. The native collections are some of the earliest surviving herbarium specimens of Irish origin.

Sloane wrote to Prior thanking him for the two volumes, and Prior passed the letter to Sir John Rawdon, who wrote to Sloane on 2 March 1735/6:

Sr

Mr Prior communicated to me a letter he received from you Novembr last, wherein you mentioned that you had received by John Thomas master of the Dublin Merchant two Books of Jamaica Plants, which I sent you upon an intimation given me that such a Present would be agreeable to you; it is a Pleasure to me to have any opportunity of Gratifying a Person, for whom my family had always the greatest respect; & the more so

when such curiosities fall into the hands of one who knows how to make the Best use of them;

I am now to return you my thanks for the 2d vol: of yr natural history of Jamaica which you were so kind as to send me By the sd John Thomas & hope I shall have the satisfaction some other time of making my acknowledgem[ent] to you in Person, & of seeing that Imense & valuable collection of which you gave the Publick a short abstract in the Preface of your second vol:

I dont know how to make a return to you for your kind intentions of furnishing me with some duplicate plants when you sort them, otherwise than by taking particular care of what you shall be pleased to send me, & by making it my business to send you whatsoever falls in my way worth your assistance. In the mean time give me leave to assure you that I am with all sincerrity yr

Oblidgd & humble Servant

John Rawdon

My Aunt Rawdon &

My Brother Arthur

present their respects to you⁷⁹

Sir John Rawdon maintained and developed a great interest in gardening; he was among the original members of the Dublin Florist's Club founded about 1746 which, although essentially a dining club, awarded prizes for florists' flowers.⁸⁰ Indeed, from surviving lists of auriculas grown in the garden at Kilruddery in the 1730s, it appears that one seedling was named after him.⁸¹

Just as he was prepared to send the herbarium specimens to Sloane, the family also donated specimens of insects and other preserved animals to Trinity College, Dublin. In 1732, frames and glasses for "Mrs Rawdon's insects" and flint jars for some reptiles were purchased for the college museum.⁸²

Moira — the Final Years

The garden at Moira was described in the mid-eighteenth century by William Harris. In 1744, he wrote that north-east of the town of Moira "is a handsome well planted and full grown Avenue leading up to the House of Sir John Rawdon . . . The Improvements and Gardens here are extensive, the Walks, Vistoes, and Espalliers regular and grown to Perfection, and furnished with Variety of good Fruit. The Garden is adorned with a pretty Labyrinth, Ponds, Canals and Wood cut out in Vistoes, at the Bottom of which is a Decoy. Upwards of fifty years ago Sir Arthur Rawdon employed one James Harlow, his Gardener, to go to Jamaica to bring from thence come exotick Trees and Plants for these Gardens; in which they have grown to great Perfection, and some of them still remain; particularly the Locust of Virginia [*Gleditsia triacanthos*] a Tree 30 Feet high, and of a Body at least a foot and half in diameter, bearing a Pod longer than any Pea, and full of Honey, supposed to be the Food that St. John Baptist lived on in the Wilderness. — The Ucca or Adam's Needle [*Yucca filamentosa*] which has a Leaf like a Flag [*Iris pseudoacorus*], and a Point as sharp as a Needle. — The Indian Honey-Suckle, spired like a rocket, with a Crimson coloured Flower, which it emits but once in three or four years. — Parsley-leaved Elder, or an Elder Tree with a Leaf like a Parsley Leaf [*Sambucus nigra*]. — The Pine or Pinaster, about 26 Feet high, which bears Clogs [cones] every Year, and is reputed to be upwards of 50 years old. — Calamus Aromaticus. — The Gooseberry-leaved Curran. — The double blossomed Whitethorn. — The Gooseberry Thorn, &c."⁸³ Harris was incorrect in implying that the Jamaican plants grew out-of-doors. He also reported that the Jamaican plants which had been grown "to great perfection . . . though neglected of late years, yet a few of them still continue there".⁸⁴

It may be assumed that Sir John kept the garden in good order, but apparently he did demolish the glasshouse which his grandfather had built.⁸⁵ Since in 1711 the plants were in poor condition and as only a few survived into the mid-1700s, the greenhouse would have become redundant, and probably decayed.

By 1778 the house, Moira Castle, was no longer occupied by the Rawdon family. It was then the residence of "the amiable and venerable" William Sharman⁸⁶ (Fig. 5). Sharman tried to maintain the garden but he was forced to dismiss his gardener because "the fellow was a knave, and connected with a numerous set of his own description". According to the Rev. Andrew Craig, Presbyterian minister at Moira from 1778 to 1782, there were "during a length of time nightly deprivations . . . on William Sharman's property. At last the windows of the Rock House were broken and the statue of Narcissus thrown into the pond".⁸⁶ These details suggest that there was a formal garden with statuary at Moira and at least one "rustic" building.

In the 1790s the Moira gardens were described as "a paradise",⁸⁷ (Fig. 6) and in 1822 John Loudon wrote that "Moira Castle, near Moira, the seat of the Marquis of Hastings contains some old trees, and also some young plantations; gardening in all its branches having been here attended to by the present owner's father [Sir John Rawdon, d. 1795], when neglected in almost every other part of Ireland".⁸⁸

By 1835 Moira Castle was in the possession of Sir Robert Bateson; Loudon later amended his statement, writing that "we believe [the garden] has been long since dismantled . . . though some of the trees and shrubs may possibly remain."⁸⁹ Bateson reported to Loudon that "there appear to be very few, if any, of the trees existing that were planted . . . about the end of the seventeenth century."⁸⁹ Notable trees at Moira in the mid nineteenth century included a lime (85ft tall), a beech (110ft), a variegated *Platanus* (50ft), *Platanus acerifolia* (70ft), *Quercus ilex* (45ft), a broad-leaved elm (90ft), *Gleditsia triacanthos* (55ft), *Castanea sativa* (45ft), silver fir (90ft) and a yew (45ft).⁹⁰ By 1890 only three of the "rare trees" were said to remain at Moira.⁹¹ In 1913 Lett wrote⁹¹ that "Sir Arthur is quite forgotten at Moira, not a trace of his mansion remains, while of his beautiful gardens the only thing left now are the depressions where formerly were the ponds and canals." Today, nothing remains but some earth banks, perhaps the remains of parterres.⁹²

Sir Arthur Rawdon was a remarkable man, who, as a war raged in Ireland, in which he himself fought, managed to organize and successfully conclude the most ambitious plant-hunting expedition of the period. He did not seek to bring back to Europe just pressed and dried herbarium specimens, or seeds, but a complete collection of living plants. Rawdon was acquainted with the leading botanists and gardeners of his time, and was as generous as any in the distribution of his plants. Perhaps luck played a large part in his and Harlow's achievement, but that should not deprive both patron and gardener of a prominent place in the annals of Irish gardening and horticulture. Arthur Rawdon, at least, fulfilled the expectation that he would be "a man of extraordinary parts".

ACKNOWLEDGEMENTS

I am most grateful to the British Library, London, the Keeper of Manuscripts, Trinity College, Dublin, and the Huntingdon Library, San Marino, California, for access to manuscripts in their collections, and for permission to publish transcripts. For their comments and assistance, my thanks are also due to C. D. Deane, Ulster Museum, Belfast, the librarian, Cheshire County Library, Chester, and Mrs. Margaret Garner. Permission to reproduce the painting of Moira Castle was granted by the Director, Ulster Museum. The



Fig. 5 Detail from a portrait in oils of William Sharman, showing Moira Castle, c. 1790 (by courtesy of the Ulster Museum, Belfast).



Fig. 6 Moura Castle demesne in 1799, a watercolour sketch by G. Beranger (by courtesy of the Royal Irish Academy, Dublin, from Ms. 3 C 30).

portrait of Sir Arthur Rawdon is reproduced by permission of the National Portrait Gallery, London. The watercolour of Moira is reproduced by courtesy of the Royal Irish Academy. Finally, my thanks are due to the Lady O'Neill of the Maine for drawing my attention to the watercolours in the Royal Irish Academy, and to J. Kerslake and Ms. E. Black for help in tracing the portraits.

NOTES AND REFERENCES

Biographical information on botanists and horticulturists mentioned in the letters and text may generally be obtained in R. G. C. Desmond. 1977. *Dictionary of British and Irish botanists and horticulturists*. London. Bibliographic information, as well as the general historical background to botany and horticulture in the late seventeenth century is available in B. Henrey. 1975. *British botanical and horticultural literature before 1800*. Oxford.

- (1) H. Sloane. 1707. *A voyage to the Island Madera . . . and Jamaica, with the natural history . . . of the last of those islands . . .* London. vol. 1, Preface [p. 3].
- (2) Some of the correspondence between Sloane and Rawdon was published by E. Berwick (ed.). 1819. *The Rawdon papers consisting of letters on various subjects*. London. pp. 388-396. Extracts were published by E. St. J. Brooks. 1954. *Sir Hans Sloane, the great collector and his circle*. London. The letters of Sir George Rawdon were published in R. P. Mahaffy (ed.) 1907. *Calendar of the State Papers relating to Ireland, 1663-1665*. London, and in R. P. Mahaffy (ed.) 1908. *Calendar of the State Papers to Ireland, 1666-1669*. London. Further letters are published in F. Bickley (ed.) 1930. *Report on the manuscripts of the late Reginald Rawdon Hastings*. (Historic Manuscript Commission). vol. 2, pp. 384-400; and by M. H. Nicholson (ed.) 1930. *Conway Letters. The correspondence of Anne, Viscountess Conway, Henry More and their friends, 1642-1684*. London. In this paper I have included unpublished letters from the sources noted; these have been edited only to the extent necessary to clarify meaning, by addition of punctuation or the insertion of missing letters in words.
- (3) B. Burke. 1883. *A genealogical history of the dormant . . . and extinct peerages . . .* London. pp. 617-618.
- (4) *Dictionary of National Biography*, vol. 16 (1909), pp. 763-765.
- (5) For example, on 31 March 1668, Rawdon wrote to Lord Conway: “. . . the sciences [scions] have come safely and time enough but the labels, being paper, were rotted off, and we have had to guess at the various sorts, and I think have hit right of the golden pippins . . .” — see R. P. Mahaffy. 1908. *op.cit.*, p. 587. On 4 April, he wrote again saying that “. . . the graffs [grafts] have arrived and are, most of them, grafted already . . .” — see R. P. Mahaffy. 1908. *op.cit.*, p. 588.
- (6) E. Berwick, *op.cit.*, p. 248.
- (7) Luke Ridgeley (d. 1697) was a popular London physician (see M. H. Nicholson *op.cit.*, pp. 69-70).
- (8) Francis Mercury van Helmont, “the real scholar gypsy”, chemist and alchemist, was closely involved with the Conway family (see M. H. Nicholson, *op.cit.*).
- (9) E. Berwick, *op.cit.*, p. 247-248.
- (10) M. H. Nicholson, *op.cit.*, p. 332 (original ms. in British Library, London. Add. Mss. 23, 213. f. 34).
- (11) M. H. Nicholson (*op.cit.*, p. 338) considers that Dethick was Edmund Dethick, son of a Lord Mayor of London, John Dethick. Edmund studied at St. John’s College, Cambridge (B.A. 1654) and Gray’s Inn (1653).
- (12) E. Berwick, *op.cit.*, p. 250; M. H. Nicholson, *op.cit.*, pp. 338-339.
- (13) F. Bickley, *op.cit.*, p. 384.
- (14) M. N. Nicholson, *op.cit.*; pp. 410-411; B. Burke, *op.cit.*
- (15) M. N. Nicholson, *op.cit.*, pp. 430-431 (original ms. in British Library, London. Add. Mss. 23, 216, f. 171).
- (16) M. N. Nicholson, *op.cit.*, pp. 411, 431.
- (17) T. Witherow. 1913. *Derry and Enniskillen in the year 1689. The story of some famous battlefields in Ulster*. Belfast. (ed. 4). p. 62.
- (18) F. Bickley, *op.cit.*, pp. 395-399.
- (19) F. Bickley, *op.cit.*, pp. 395-396.
- (20) F. Bickley, *op.cit.*, p. 397

- (21) The text of Tyrconnel's proclamation is given by W. C. Trimble. 1920. *The History of Enniskillen* . . . Enniskillen. vol. 2, pp. 428-431 (see also p. 470).
- (22) [C. Leslie]. 1692. *An answer to a book* [by W. King] intituled, *the state of the Protestants in Ireland under the late King James' Government*. London. p. 87. (cited in T. Witherow, *op.cit.*, p. 62).
- (23) see T. Witherow, *op.cit.*, pp. 62-80.
- (24) B. Burke, *op.cit.*
- (25) There are about a dozen books from the Rawdons' library in the Public Library, Armagh. I am very grateful to Mr. William Kerr for drawing these to my attention and to the Keeper of the Library, and Mrs. R. I. Lillie for assisting me to trace the volumes.
- (26) E. St. J. Brooks, *op.cit.*
- (27) E. Berwick, *op.cit.*, pp. 388-391.
- (28) H. Sloane, *op.cit.* J. E. Dandy (ed.) 1958. *The Sloane herbarium*. London. pp. 134-135.
- (29) see note 73 below.
- (30) see E. St. J. Brooks, *op.cit.*, pp. 132-133. James Sloane, a lawyer, was apparently considering terms of a marriage settlement between Arthur's sister, Brilliana Rawdon and Frances Annesley (see letter dated 24 June 1691, note 56).
- (31) Sloane ms. 4036, f. 35. British Library, London.
- (32) Sloane ms. 4036, f. 73. British Library, London.
- (33) see R. Head. 1887. *Congleton past and present*. pp. 24-26. F. Bickley, *op.cit.*, p. 399 includes a letter addressed to Lady Graham "at her house near Congleton".
- (34) E. Berwick, *op.cit.*, pp. 391-392.
- (35) Sloane ms. 4036, f. 76. British Library, London.
- (36) John Watts, curator of the Chelsea Physic Garden, visited the Physic Garden of the University of Leiden in 1683 and brought back at least four seedlings of *Cedrus libani*; four trees were planted in the Chelsea Garden. As these cedars did not produce cones until 1724, the plant referred to by Sloane may have been an additional seedling from Leiden, or have come from another source. The production of cones by these cedars in 1724 (eight years earlier than generally stated (see F. D. Drewitt. 1924. *The romance of the Apothecaries' garden at Chelsea*, London)) was noted by a correspondent of Judge Ward, of Castle Ward, Co. Down; in a letter dated 1725 is the following passage.
 "There is no such thing as the seed or the cones of the Cedar of Lebanon to be had. The tree you mention in the Phisick Garden at Chelsey, did last year for the first time bear one single cone, so you may be sure none of the seed contained in it is to be procured by me." (see J. Stevenson, 1920. *Two centuries of Life in Down 1600-1800*. Belfast p. 449).
- (37) John Ray published *Synopsis* . . . in 1690.
- (38) probably *Phytologia, sive stirpium illustriorum* . . . published by Leonard Plukenet in London in 1691.
- (39) E. Berwick, *op.cit.*, pp. 393-394.
- (40) A. Hewitson (ed.) 1908. *Diary of Thomas Bellingham. An officer under William III*. Preston. p. 127.
- (41) B. D. Jackson. 1874. A sketch of the life of William Sherard. *J.Bot., Lond.*, 3 (n.s.): 129-138. H. N. Clokier. 1964. *An account of the herbaria of the . . . University of Oxford*. Oxford. pp. 17-30.
- (42) D. Turner (ed.) 1835. *Extracts from the literary and scientific correspondence of Richard Richardson*. Yarmouth. pp. 1-3.
- (43) Sloane ms. 4044, f. 21. British Library, London. (quoted by M.E. Mitchell. 1975. Irish botany in the seventeenth century. *Proc. Roy. Ir. Acad.*, 75 (B3): 275-284).
- (44) Sloane ms. 4062. f. 230-231. British Library, London.
- (45) *Dictionary of National Biography*, vol. 13 (1909), pp. 572-573. K. T. Hoppen. 1970. *The common scientist in the seventeenth century*. London.
- (46) R. T. Gunther. 1935. *Early science in Oxford*. vol. 10 (The life and work of Robert Hooke). Oxford. p. 174. K. T. Hoppen, *op.cit.*, p. 239 (note 74).
- (47) E. Berwick, *op.cit.*, pp. 395-396.
- (48) J. E. Dandy, *op.cit.*, pp. 192-193.
- (49) see *Phil. Trans. Roy. Soc., London*, 28 (1713): 216 — item no. 141 Barbadoes Fiddlewood: ". . . I [Sloane] have seen it . . . at Hampton Court, whither it was first brought from Barbadoes by James Rheede, who King William sent thither, to bring over plants and seeds."
- (50) possibly Slieve Croob, southeast of Moira, south west of Ballinahinch.

- (51) *Teucrium cisti flore* is the polynomial for *Dryas octopetala* which was reported from the Burren, County Clare, as early as 1650 (see E. C. Nelson. 1979. Records of the Irish flora published before 1726. *Ir. Biogeog. Soc. Bull.*, 3: 51-74).
- (52) D. Turner, *op.cit.*, pp. 7-12.
- (53) The statement by Rawdon that Reed had been "lost from" the West Indies, has been interpreted as an indication that Reed died while collecting there. It seems better to interpret this phrase as indicating that Reed did not return to the West Indies after bringing seeds and plants to England (see, e.g., note 49) — that is that Reed was "lost from" working in the West Indies. There is no statement, in letters or published works, which unequivocally indicates that Reed died in the West Indies. R. A. Howard (1979 Early botanical records from the West Indies, particularly Barbados: Ligon (1657) to Lord Seaforth (1806). *Bot. J. Linn. Soc., Lond.*, 79: 65-96) refers to Reed and the plants raised by Sherard (who is erroneously described as "the nurseryman").
- (54) E. C. Nelson, *loc.cit.* M. E. Mitchell, *loc.cit.*
- (55) *Cephalanthera longifolia* which was collected by Sherard at Creevytenant (see E. C. Nelson, *loc.cit.*).
- (56) Sloane ms. 4036, f. 105. British Library, London.
- (57) M. E. Mitchell. *loc.cit.*
- (58) J. Ray. 1696. *Synopsis methodica stirpium britannicarum* . . . London. (ed. 2) (*Post librum impressum*) see E. C. Nelson, *loc.cit.*
- (59) Sloane ms. 4036, f. 115. British Library, London.
- (60) J. Ray. 1696. *op.cit.* E. C. Nelson. *loc.cit.*
- (61) Sloane ms. 4036, f. 121. British Library, London.
- (62) Sloane ms. 4036, f. 119-120. British Library, London. The fern from Madeira was described by Sloane (see note 68 below).
- (63) A. Hewitson, *op.cit.*, p. 123.
- (64) J. C. Walker. 1799. Essay on the rise and progress of gardening in Ireland. *Trans. Roy. Ir. Acad.*, 4 (Antiquities): 3-19. E. C. Nelson (1983). Some records (c. 1690-c. 1830) of "greenhouses" in Irish garden. *Moorea* 2 21-28.
- (65) For a review of the methods of transporting plants, see R. G. C. Desmond. 1979. The problems of transporting plants; in J. Harris (ed.). *The Garden. A celebration of one thousand years of British gardening*. London. pp. 99-104. Desmond remarked that in the late seventeenth century " . . . a good number of plants did survive [long sea] journeys, perhaps more by luck than good management."
- (66) Sloane ms. 4036, f. 126. British Library, London.
- (67) E. C. Nelson. 1980. A contribution towards a catalogue of collectors in the foreign phanerogam section of the herbarium, National Botanic Gardens, Glasnevin. *Glasra*, 4: 31-68. M. J. P. Scannell. 1979. A 17th century *hortus siccus* made in Leyden, the property of Thomas Molyneux, at DBN. *Ir. Nat. J.*, 19: 320-321.
- (67a) Sloane ms. 4044, f. 21. British Library, London. For a full account of Sherard's life and career, see G. Pasti (1950). *Consul Sherard: amateur botanist and patron of learning 1659-1728*. Unpublished doctoral thesis, University of Illinois. pp. 56-60. This letter from Sherard to Sloane suggests that Lady Helen Rawdon died before Sir Arthur.
- (68) H. Sloane, 1696. *Catalogus plantarum quae in insula Jamaica sponte proveniunt* . . . London. p. 14. This fern was mentioned by Sherard in his letter dated 3 May, 1692 (see note 62 above).
- (69) R. Morison. 1699. *Plantarum historiae universalis Oxoniensis* . . . *Partem hanc tertiam, post auctoris mortem* . . . *absolvit J. Bobartius*. Oxford.
- (70) Sloane ms. 4039, f. 117. British Library, London.
- (71) Sloane ms. 4043, f. 3-4. British Library, London.
- (72) Sloane ms. 4043, f. 331. British Library, London.
- (73) Ms. HA 15638. The Huntingdon Library, San Marino, California; see E. C. Nelson (1982a). The influence of Leiden on botany in Dublin, in the early eighteenth century. *Huntia*, 4: 133-146 (in this paper I discuss this letter in the context of the Physic Garden at Trinity College, Dublin).
- (74) E. C. Nelson (1982a). *loc. cit.*
- (75) Sloane ms. 4054, f. 107. British Library, London.
- (76) H.S. 301 in British Museum (Natural History), London; see J. E. Dandy. *op. cit.*, pp. 134-135, 189.
- (77) H.S. 300. J. E. Dandy, *op. cit.*

- (78) H.S. 299. J. E. Dandy, *op. cit.*
- (79) Sloane ms. 4054, f. 191. British Library, London.
- (80) E. C. Nelson (1982b). The Dublin Florists' Club (c. 1747-c. 1766). *Garden History*, **10**: 142-148
- (81) Ms. in possession of the Earl of Meath; see E. C. Nelson (1982b), *loc. cit.*
- (82) W. Maple was paid for "... 24 frames and glasses for Mrs. Rawdon's insects" and for "3 flint jar's for some reptiles" on 30 January 1732. Bursar's vouchers, MUN/P/4, f. 36/33. Trinity College, Dublin.
- (83) [W. Harris]. 1744. *The antient and present state of the county of Down* . . . Dublin. pp. 103-104.
- (84) [W. Harris], *op. cit.*, p. 265. see also J. Salmon, 1895. The Moira plants. *Ulster J. Archaeol.* **1** (ser. 2): 151.
- (85) J. C. Walker, *loc. cit.*
- (86) [A. Craig]. 1907. An autobiographical sketch of Andrew Craig, 1754-1833, Presbyterian minister in Lisburn. *Ulster J. Archaeol.*, **13**: 10-15; *ibid.*, **14**: 51-55. A portrait of Sharman with Moira Castle in the background (detail in Fig. 5) is in the Ulster Museum, Belfast (see E. Black 1976. Volunteer portraits in the Ulster Museum, Belfast. *The Irish Sword*, **13** (52): 181-184).
- (87) J. C. Walker, *loc. cit.*
- (88) J. C. Loudon. 1822. *Encyclopaedia of gardening*. London. p. 1097. This entry has been interpreted by E. Malins and P. T. P. Bowe (1980. *Irish gardens and demesnes from 1830*. London, pp. 19, 173) as "... an encomium by an artist [Loudon] for his patron [Marquis of Hastings] and is the only description of an Irish garden in the encyclopaedia for which he [Loudon] does not rely on *A Tour of Ireland*, 1811". This interpretation is not acceptable. At the time, the 1820s, the Rawdon family no longer resided at Moira Castle, which had been occupied since the late eighteenth century by William Sharman (see note 86 above), and which by 1835 was occupied by Robert Bateson. Had Loudon assisted to carry out the "large-scale improvement" at Moira, as suggested by Malins and Bowe, it is unlikely that he would have stated in *Arboretum et Fruticetum Britannicum* (London, 1835) (see note 89 below) that the garden at Moira "... had been long since dismantled" — this clearly contradicts Loudon's earlier entry, suggesting that that entry had not been based on personal knowledge or even recent correspondence. It seems, therefore, that Loudon did not work for the Marquis of Hastings, but that he uncritically relied on earlier writings, perhaps including J. C. Walker, *loc. cit.* Craig's account of the destruction of garden ornaments at Moira in the 1780s, and Bateson's statements about the garden in the 1830s, indicate that the Moira garden began to decay in the latter half of the eighteenth century, when the Rawdons ceased to reside there.
- (89) J. C. Loudon. 1835. *Arboretum et fruticetum Britannicum*. London (ed. 1) vol. 1 pp. 48-49, 108.
- (90) J. C. Loudon. 1835. *op. cit.*, p. 111.
- (91) H. W. Lett. 1913. Botanists of the north of Ireland. *Ir. Nat.*, **22**: 21-33.
- (92) Mrs. Margaret Garner, pers. comm. 1980.

OBITUARY

If Norman McNeilly had been born 60 or 70 years later, his birth might have received mention by the media as a first arrival, for he was born just as the New Year, 1907, was being ushered in. In those pre-radio and pre-T.V. days, time was not pin-pointed with to-day's accuracy and, although he celebrated his birthday on 31st December, he maintained that there was some doubt whether he was born just before or just after midnight. However, whether or not he achieved "a first" on arrival, there is no doubt he was in first place on leaving Stranmillis Teacher Training College; he also obtained a First Prize for the best all-round performance on graduating at Trinity College, Dublin.

That high standard of performance he maintained throughout his professional career and continued into retirement. He achieved success early in his teaching life for he became Headmaster of the Belfast Boys' Model School at the age of 31 after a few years as an assistant teacher and continued in that position until he retired — 34 years later in 1972 — apart from a war-time break when he became Chief Evacuation Officer in the Northern Ireland Government responsible for the dispersal of pupils and staff to safer reception areas.

He took over as Head of "The Model" before the War when it was in Cliftonville, saw it converted from primary to secondary level in 1954 and pioneered its transfer in 1957 to the present commanding site at Carr's Glen on Ballysillan Road. It was then unique in that it was a Comprehensive School with a Grammar School stream, was not restricted to neighbourhood intake, but drew its pupils from all parts of Belfast and beyond. He fought to retain the much-prized term "Model" in its title and has been fully justified by results over the years. A new wing, added after his retirement, was named after him.

Immediately after retirement he wrote a history of the Belfast Education Authority and its work, entitled "Exactly Fifty Years" and it is now available for use as a reference book for students. This was followed some years later by "The Music Makers", a detailed study of the development of music in Northern Ireland to mark the twenty-first anniversary of the founding of the N.I. Youth Orchestra. Both these works involved a great deal of research — an activity which gave him much satisfaction and for which he had a particular aptitude.

Life, however, was not all work for he was keenly interested in sport, especially rugby football. A native of Newtownards, he was proud of his early connection with Ards Rugby Club, of which he was a founder member in the early 1920s. For many years he was a member of the Church of Ireland Young Men's Society and was a Past President of the Rugby Club. He re-wrote, practically single-handed, the Constitution of the Society to bring it more into line with to-day's ecumenical ideas. At the time of his death on 1st May, 1982, he was engaged — in spite of failing health — in writing a comprehensive history of the C.I.Y.M.S. and had almost completed it.

As Secretary of our Society for five years, he brought his penetrating mind to bear on its affairs. His interest in research led him to probe into the Society's history and, in particular, to trace the whereabouts of many of its important manuscripts. To mark the 150th anniversary of the opening of the Belfast Museum building in 1831, and at the request of the Council he produced a volume containing selections from proceedings over the years. To ensure that the selection was not only varied but also representative of the whole period, he had to read many hundreds of the contributions and to exercise an editor's judgment. This he did successfully.

His capable handling of the Society's affairs was fully recognised and much appreciated by the Council and his retirement for health reasons accepted with regret. His wise advice will be greatly missed.

As a man, Norman McNeilly was essentially a pragmatist. Doctrines, ideologies and theories, whether of education or anything else, he regarded as less important than performance and he valued character above class or creed. He was himself reliable and trustworthy in all he undertook. His worth and work were recognised in the award of the M.B.E.

W. J. SMART

BELFAST NATURAL HISTORY AND PHILOSOPHICAL SOCIETY

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